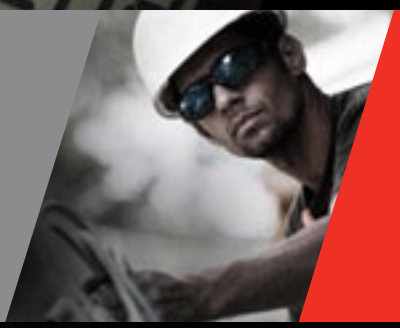
AMPROBE®

HARD AT WORK SINCE 1948.

# 2011 / 2012 TEST TOOLS CATALOG



# Table of Contents


**CLAMP METERS** Page 7

ACD-20SW....10
ACD-21SW....10
ACD-22SW....10
ACD-23SW....10
ACD-50NAV....11
ACD-51NAV....11
ACDC-52NAV....11
ACD-53NAV....11
ACDC-54NAV....11
ACD-14 PLUS....12
ACD-14 TRMS-PLUS....12
ACD-10 PLUS....12
ACD-10 TRMS-PLUS....12
ACD-41PQ....13
ACD-45PQ....13
RS-1007....13
RS-3 PRO....13
ACDC-3400 IND....14
ACD-3300 IND....14
AC50A....15
LH41A....15
ACD-16 TRMS-PRO....15
AC40C....16
AD40B....16
ACDC-400....16
ACD-6 PRO....16
ACDC-100....17
ACDC-100 TRMS....17
ACD-15 TRMS PRO....17
AC68C....18
AC75B....18
ELS2A....18

**DIGITAL MULTIMETERS** Page 19

AM-250....22
AM-270....22
AM-140-A....23
AM-160-A....23
PM51A....24
PM55A....24
AM-220....24
AM-240....24
5XP-A....25
15XP-B....25
35XP-A....25
30XR-A....26
33XR-A....26
34XR-A....26
37XR-A....26
38XR-A....26
HD110C....27
HD160C....27
DM73C....28
DM78C....28
DM7C....28
DM9C....28

**ELECTRICAL TESTERS** Page 29

INSP-3....30
VPC-30....31
VPC-31....31
TIC 300 PRO....32
TIC 410A....32
PRM-4....33
MO-100....33
VP-440....34
VP-600SB....34
HV231-10A....34
PY-11....34
ST101A....35
ST102A....35
PY-1A....35
LAN-1....35

**WIRE TRACERS/LOCATORS** Page 37

AT-5000....38
AT-5005....38
AT-3500....39
AT-4001 CON....40
AT-4003 CON....40
AT-4004 CON....40
AT-4005 CON....40
AT-2004....41
AT-2005....41
AT-1000....41
CT-326B....42
CT-100....42
BT-120....42
BT-250....42
ECB50A....42

**INSULATION / GROUND/ POWER QUALITY** Page 43

AMB-45....44
ISO-PRO....44
AMB-25....44
AMB-50....45
AMB-55....45
AMB-110....45
AMB-2 ....46
AMB-3....46
AMC-2....46
AMC-3....46
AMC-4....46
GP-2....47
EARTH-TEST....47
DGC-1000A....47
DM-III MULTITEST....48
DM-III MULTITEST F....48
DM-II PLUS....49

**HVAC/ENVIRONMENTAL** Page 51

THWD-10....52
THWD-10W....52
THWD-3....52
TH-1....53
TH-3....53
THWD-5....53
TMD-50....55
TMD-51....55
TMD-52....55
TMD-53....55
TMD-53W....55
TMD-55....55
TMD-55W....55
TMD-56....55
RTD-10....56
RTD-10W....56
TMD90A....56
TMD10....57
IR500....57
IR608A....57
TR100-A....58
TR200-A....58
TR300....58
MT-10....58
TMA5....59
TMA10A....59
TMA40-A....60
TMA-20HW....60
TMA-21HW....60
RLD-1....61
GSD600....61
TX900....62
TMULD-300....62
ULD-300....62
CM-100....63
CO2-100....63
CO2-200....63
MAN15....64
MAN30....64
MAN02-A....64
TACH20....64
TACH-10....64
LM-100....65
LM-120....65
LM-200LED....65
WT-10....66
WT-20....66
WT-30....66
WT-40....67
WT-50....67
WT-60....67
WT-70....67
WT-80....67
SM-10....68
SM-20A....68
SM-CAL1....68
TIME-10....68
TIME-20....68

**SOLAR** Page 69

SOLAR-100....70
SOLAR-500....71
SOLAR-600....71

**BATTERY TESTERS**

BAT-100....72
BAT-200....72
BAT-500....72

**COMPONENT TESTERS**

CR50A....73
LCR55A....73

**RELAYS**

R-1155....73
RC-120S....73

**FLASHLIGHTS**

Flash-200SP....74
Flash-150Z....74
Flash-80....74
Flash-175....74

**ACCESSORES** Page 76-79

THE BEST TOOLS FOR THE MONEY. PERIOD.
You work hard for your money.
Get the tools that let you keep it.
Get Amprobe.
For six decades we've been hard at work building durability and affordability into every tool we make. Proven in the workplace, no other tools give you more for your money than Amprobe. On the job, nothing beats experience. And for tools that are built tough and priced right, nothing beats Amprobe.
Visit us at www.amprobe.com
AMPROBE®
HARD AT WORK SINCE 1948.

# Amprobe offers hundreds of test tools for your industrial, commercial and residential applications, all built tough and priced right. Here are just a few examples of where Amprobe's portfolio of tools will fit into your world.

AMPROBE®
HARD AT WORK SINCE 1948.

A

**SOLAR 600 Solar Analyzer**
Install and maintain solar panels with maximum efficiency.

B

**VPC-31 Voltage Tester**
Check for live voltage and continuity with built-in shaker.

C

**CO2 Meter**
Get instant feedback on $CO_2$ levels.

D

**MT-10 Moisture Meter**
Detect leaks and water damage.

E

**INSP-3 Wiring Inspector**
Test wiring in seconds.

F

**RLD-1 Refrigerant Leak Detector**
Quickly troubleshoot air conditioning systems.

G

**AM-270 Digital Multimeter**
Safety rated for CAT IV environments.

H

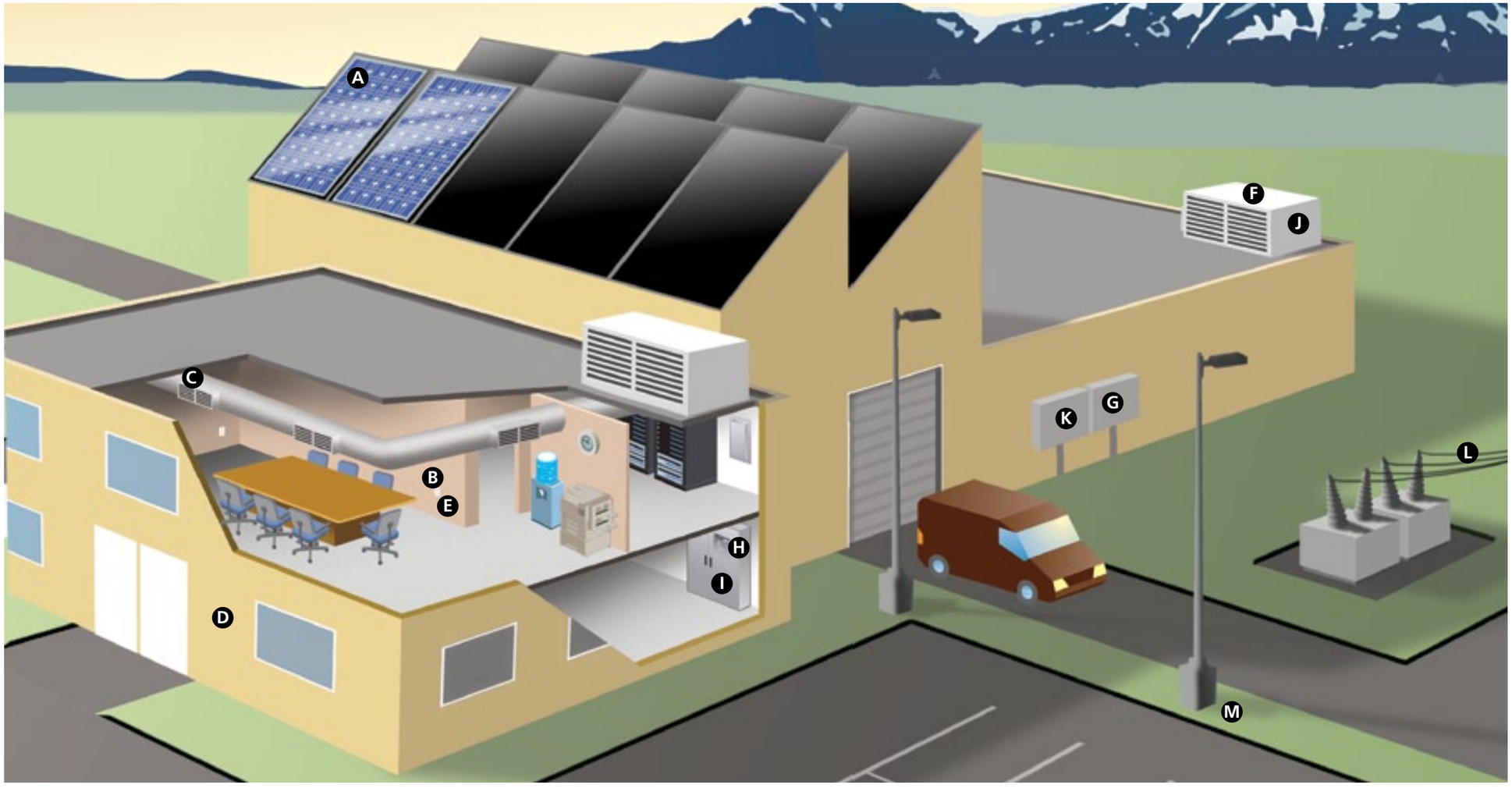
**DM-III Multitest Power Quality Recorder**
Cut energy costs and improve efficiency.

I

**ACD-23SW Swivel™ Clamp Meter**
Rotating head lets you swivel to see.

J

**ACD-14 PLUS Digital Clamp Multimeter**
Thin jaws gives you access to tight areas.




K

**ACDC-54NAV Navigator™ Clamp Meter**
Get a snapshot of harmonics and power quality.

L

**TIC 300 PRO Voltage Detector**
Safely check for high voltage without contact.

M

**AT-5000 Underground Cable and Pipe Locator**
Know what's underground before you dig.

## www.Amprobe.com

**Our web site contains full data sheets with specifications, application notes, software downloads, special promotions and much more.**

**Visit our website at www.Amprobe.com**

- View complete detailed product specifications
- Download data sheets
- Review or download user manuals
- Read our application articles
- Review available accessories
- Identify replacement fuses
- Download the latest software for your Amprobe recording tool
- Request a catalog for your friend!

# Clamp Meters

**INNOVATION**

**Amprobe invented the first clamp meter and the innovation has never stopped. Amprobe's Swivel™ Clamp Meters rotate 180 degrees for a perfect view in tight or difficult-to-reach places. The new Amprobe Navigator™ Clamps couple advanced power quality troubleshooting with extraordinary simplicity so you can instantly navigate to exactly the feature you want.**

AMPROBE®
HARD AT WORK SINCE 1948.

# Clamp Meter Selection Guide

| MODEL# | ACD-20SW | ACD-21SW | ACD-21 SWC* | ACD-22SW | ACD-23SW | ACD-50 NAV | ACD-51 NAV | ACDC-52 NAV | ACD-53 NAV | ACDC-54 NAV | ACD-14 Plus | ACD-14 TRMS Plus | ACD-10 Plus | ACD-10 TRMS Plus | ACD-41PQ | ACD-45PQ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pg 10 | Pg 10 | Pg 10 | Pg 10 | Pg 10 | Pg 11 | Pg 11 | Pg 11 | Pg 11 | Pg 11 | Pg 12 | Pg 12 | Pg 12 | Pg 12 | Pg 13 | Pg 13 |
| | Swivel™ Clamp Meters | | | | | Industrial, Power Quality Navigator™ Clamps | | | | | Multimeter Clamps | | | | Power Quality Clamp | |
| Safety Rating | CAT III 600V | CAT III 600V | CAT III 600V | CAT III 600V | CAT III 600V | CAT IV 600V | CAT IV 600V | CAT IV 600V | CAT IV 600V | CAT IV 600V | CAT III 600V | CAT III 600V | CAT III 600V | CAT III 600V | CAT III 600V | CAT III 600V |
| True rms | | | | • | • | • | • | • | • | • | | • | | • | • | • |
| AC Voltage (V) | 600 V | 600 V | 600 V | 600 V | 600 V | 1000 V | 1000 V | 1000 V | 1000 V | 1000 V | 600 V | 600 V | 600 V | 600 V | 600 V | 600 V |
| DC Voltage (V) | 600 V | 600 V | 600 V | 600 V | 600 V | 1000 V | 1000 V | 1000 V | 1000 V | 1000 V | 600 V | 600 V | 600 V | 600 V | 600 V | 600 V |
| AC Current (A) | 400A | 400A | 400A | 400A | 400A | 600A | 600A | 600A | 1000A | 1000A | 600 A | 600 A | 600 A | 600 A | 1000A | 600A |
| DC Current (A) | | | | | | | | 600A | | 600A | | | | | | |
| Micro Amps | | | | | | | • | | | | • | • | | | | |
| Resistance | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| Capacitance | | • | • | | • | • | • | • | | • | • | • | • | • | | |
| Inductance | | | | | | | | | | | | • | | | | |
| Frequency (Test Leads) | | | | | | • | • | • | • | • | | | • | • | • | • |
| Frequency (Jaw) | | | | | | • | • | • | • | • | • | • | • | • | • | • |
| Duty Cycle | | | | | | | | | | | | | | | | |
| Relative Zero | • | • | • | • | • | • | • | • | • | • | • | • | • | • | | |
| Temperature | | • | • | | • | | • | | | • | • | • | | | • | |
| Diode Test | • | | | • | | • | • | • | • | • | • | • | • | • | | |
| Continuity Beeper | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| Non-Contact Voltage | • | • | • | • | • | • | • | • | • | • | | | | | | |
| Power(W) | | | | | | • | • | • | • | • | • | • | • | • | • | • |
| Autoranging | | | | • | • | • | • | • | • | • | • | • | • | • | • | • |
| Total Harmonic Distortion (THD) | | | | | | • | • | • | • | • | | | | | • | |
| Phase Rotation Indication | | | | | | • | • | • | • | • | | | | | | |
| Inrush Current | | | | | | • | • | • | • | • | | | | | | |
| dBm reading | | | | | | | | | | | | | | | | |
| Backlight | | | | | | • | • | • | • | • | | | | | • | • |
| Bar Graph | | | | | | • | • | • | • | • | | | | | | |
| Data Hold | • | • | • | • | • | • | • | • | • | • | • | | • | • | • | • |
| Peak hold (Crest) | | | | | | • | • | • | • | • | | | | | • | • |
| AutoTest Function (V,A,R) | | | | | | | | | | | | | | | • | • |
| Data logging | | | | | | | | | | | | | | | • | • |
| PC Interface Capabilities | | | | | | | | | | | | | | | • | • |
| Auto Power-Off | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| Work light (LED) | | | | | | • | • | • | • | • | | | | | | |

| MODEL# | ACD-3300 IND | ACDC-3400 IND | RS-3 PRO | RS-1007 PRO | AC50A | LH41A | ACD-16 TRMS PRO | AD40B | AC40C | ACDC-400 | ACD-6 PRO | ACDC-100 | ACDC-100 TRMS | ACD-15 TRMS PRO | AC75B | AC68C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pg 14 | Pg 14 | Pg 13 | Pg 13 | Pg 15 | Pg 15 | Pg 15 | Pg 16 | Pg 16 | Pg 16 | Pg 16 | Pg 17 | Pg 17 | Pg 17 | Pg 18 | Pg 18 |
| | Large Jaw Industrial Clamps | | Analog Clamps | | Leakage Clamps | | Recording Clamps | Basic Clamps | | | | | | Specialty Clamps | | |
| Safety Rating | CAT IV 600V | CAT IV 600V | CAT IV 600V | CAT IV 600V | CAT II 600V | CAT II 600V | CAT III 600V | CAT III 600V | CAT III 600V | CAT III 600V | CAT III 600V | CAT III 600V | CAT III 600V | CAT III 600V | CAT III 600V | CAT III 600V |
| True rms | • | • | | | | | • | | • | | | | • | • | • | • |
| AC Voltage (V) | 1000 V | 1000 V | 600 V | 600 V | 600 V | | 600 V | | 600V | 600 V | 600 V | 600 V | 600 V | 600 V | 750 V | 600 V |
| DC Voltage (V) | 750 V | 750 V | | | | | 600 V | | 600 V | 600 V | 600 V | 600 V | 600 V | 600 V | 1000 V | 600 V |
| AC Current (A) | 1000 A | 1000 A | 300 A | 1000 A | 60 A | 40 A | 1000 A | 400 A | 400 A | 400 A | 1000 A | 800 A | 800 A | 2000 A | 600 A | 600 A |
| DC Current (A) | | 1000 A | | | | 40A | | | | 400 A | | 1000 A | 1000 A | | | 600 A |
| Micro Amps | | | | | | | | | | | | | | | • | |
| Resistance | • | • | • | • | • | | • | | • | • | • | • | • | • | • | • |
| Capacitance | • | • | | | | | | | | | | • | • | • | • | |
| Inductance | | | | | | | | | | | | | | | | |
| Frequency (Test Leads | • | • | | | | | • | | | | | | | • | | • |
| Frequency (Jaw) | • | • | | | | | • | | | | | | | • | | • |
| Duty Cycle | | | | | | | | | | | | | | | | |
| Relative Zero | • | • | | | • | • | • | | | • | • | • | • | • | | • |
| Temperature | • | | | | | | • | | | | | | | | • | |
| Diode Test | • | • | | | | | | | | | • | • | • | • | • | • |
| Continuity Beeper | • | • | • | • | • | | • | • | • | • | • | • | • | • | • | • |
| Non-Contact Voltage | | | | | | | | | • | | | | | • | | |
| Power(W) | | | | | | | | | | | | | | | | |
| Autoranging | • | • | | | • | • | • | • | • | • | • | • | • | | • | • |
| Total Harmonic Distortion (THD) | | | | | | | | | | | | | | | | |
| Phase Rotation Indication | | | | | | | | | | | | | | | | |
| Inrush Current | | | | | | | | | | | | | | | | |
| dBm reading | | | | | | | | | | | | | | | | |
| Backlight | • | • | | | | | | | | • | | • | • | • | • | • |
| Bar Graph | | | | | • | | | • | • | • | | | | • | | |
| Data Hold | • | • | | | • | • | • | • | • | • | • | • | • | • | • | • |
| Peak hold (Crest) | • | • | | | • | | | | | | | | | | | • |
| AutoTest Function (V,A,R) | | | | | | | | | | | | | | • | | |
| Data logging | | | | | | | • | | | | | | | | | |
| PC Interface capabilities | | | | | | | • | | | | | | | | | |
| Auto Power-Off | • | • | | | • | • | • | • | • | • | • | • | • | • | • | • |
| Work light (LED) | | | | | | | | | | | | | | | | |

## Swivel™ Clamp Meters

**Get a perfect view of your measurements in tight or inconvenient spots with the patented rotating head design of Amprobe's new Swivel™ Clamp Meters. The slim jaw puts all features within easy reach for one-handed operation. It's a fast and easy way to test both HVAC and electrical applications.**

- 180-degree rotating head for a perfect view of the display
- Advanced VolTect™ non-contact voltage detection
- Audible continuity
- Auto ranging for quick checks and manual ranging for precise measurements
- Data hold

| FEATURE | ACD-20SW | ACD-21SW | ACD-21SWC* | ACD-22SW | ACD-23SW | BEST ACCURACY |
|---|---|---|---|---|---|---|
| TRMS | - | - | - | • | • | - |
| AC Current | 40.00 A , 400.0 A | | | | | +/- (2.0 % rdg + 10 dgts) 50 Hz ➞ 60 Hz |
| AC Voltage | 4.000 V, 40.00 V, 400.0 V, 600.0 V | | | | | +/- (1.2% rdg + 8 dgts) ➞ 400 V Hz |
| DC Voltage | 400.0 mV, 4.000 V, 40.00 V, 400.0 V, 600.0 V | | | | | +/- (0.5% rdg + 2 dgts) |
| Resistance | 400.0 Ω, 4.000 kΩ, 40.00 kΩ, 400.0 kΩ, 4.000 MΩ, 40.00 MΩ | | | | | +/- (1.0% rdg + 4 dgts) at 400 Ω ➞ 400 kΩ ranges |
| Capacitance | - | 4.000 µF, 40.00 µF, 400.0 µF, 4,000 µF | | - | 4.000 µF, 40.00 µF, 400.0 µF, 4,000 µF | +/- (3.0 % rdg + 15 dgts) on 40 µF ➞ 400 µF ranges |
| Temperature | - | -30 °F ➞ 400 °F | -35 °C ➞ 400 °C | - | -30 °F ➞400 °F, (-35 °C ➞ 400 °C) | +/- (1 % + 2 °F) -4 °F ➞ 400 °F +/- (1 % + 1 °C) 0 °C ➞ 200 °C |
| Diode Test | • | - | - | - | - | - |
| VolTect™ non-contact voltage detection | 70 V ➞ 600 VAC (50 Hz ➞ 60 Hz) | | | | | - |
| Backlight | - | - | - | • | • | - |
| Accommodates Conductors | Up to 1.18" (30 mm) in diameter | | | | | |

**ACD-21 SWC Available for sale in Canada only.*

**INCLUDED ACCESSORIES:** Test leads, battery (installed), users manual, carrying case, type-K thermocouple (ACD-21SW, ACD-21SWC and ACD-23SW only)

CAT III 600 V · CE · CSA US · N10140

**RECOMMENDED ACCESSORIES**

**DL248D** **Deluxe Test Leads Kit** (See Page 76)

**ELS2A** **AC Line Splitter** (See Page 18)

*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**ACD-20SW**
400A SWIVEL CLAMP

**ACD-21SW**
400A SWIVEL CLAMP W/TEMP AND CAPACITANCE

**ACD-22SW**
TRMS 400A SWIVEL CLAMP

**ACD-23SW**
TRMS 400A SWIVEL CLAMP W/ TEMP AND CAPACITY







## Navigator™ Clamp Meters

**The perfect troubleshooting tool, Amprobe's new line of Navigator™ Clamp Meters provide a snapshot of harmonics and power quality measurements to help determine if specialized equipment is needed. From min/max and power factor, to ac/dc, Navigator™ Clamp puts a wide range of measurement options at your fingertips.**

**Navigator™ Clamp Meters make accurate measurements so quick and easy, you can do it one handed. With the joystick control, simply highlight the desired function on the display and press "select." Save yourself time and navigate right to the answers.**

- Phase rotation indication
- VolTect™ non-contact voltage detection
- Inrush current measurement for motors
- Low-pass filter for variable frequency drives
- Continuity beeper
- Min, max and smart data hold
- Peak hold
- Auto torch-light when clamping
- Large display with active backlight and analog bargraph
- Auto power-off
- Overmold body to absorb shock – drop-proof to four feet
- True-rms provides accuracy and dependability

| FEATURE | ACD-50NAV | ACD-51NAV | ACDC-52NAV | ACD-53NAV | ACDC-54NAV | BEST ACCURACY |
|---|---|---|---|---|---|---|
| AC Current | 100.00 A, 600.0 A | | | 100.00 A, 1000.0 A | | +/- (1.5 % rdg + 5 LSD) |
| DC Current | – | – | 100.00 A, 600.0 A | – | 100.00 A, 1000.0 A | +/- (1.5 % rdg + 5 LSD) |
| AC Voltage | 100.00 V, 1000 V | | | | | +/- (1.0 % rdg + 5 LSD) |
| DC Voltage | 100.00 V, 1000 V | | | | | +/- (0.7 % rdg + 2 LSD) |
| Resistance | 1.0000 KΩ, 10.00 KΩ, 100.00 KΩ | | | | | +/- (1.0 % rdg + 3 LSD) |
| Frequency | 20.0 Hz to 10 KHz | | | | | +/- (0.5 % rdg +3 LSD) |
| Capacitance | 400.0 µF, 4.000 mF | | | | | +/- (1.9 % rdg + 8 LSD) |
| DCµA | – | 1000.0 µA | – | – | – | +/- (1.7 % rdg + 2 LSD) |
| Temperature | – | -50 °F ➞ 1832 °F (-50 °C ➞ 1000 °C) | – | – | -50 °F ➞ 1832 °F (-50 °C ➞ 1000 °C) | +/- (1 % rdg + 0.8 °C) |
| THD (Total Harmonics Distortion) | 0.1% ➞ 100.0% | | | | | +/- (3.0 % rdg + 10 LSD) |
| Individual Harmonics | 1 ➞ 25 | | | | | – |
| Power | 10 kW ➞ 600 kW | | | 10 kW ➞ 1000 kW | | +/- (2.5 % rdg + 5 LSD) |
| Power Factor | -1.00 ➞ 1.00 | | | | | +/- 3 degrees |
| Accommodates Conductors | Up to 1.45" (37 mm) in diameter | | | Up to 1.60" (40 mm) in diameter | | |

**INCLUDED ACCESSORIES:** Test leads, users manual, batteries (installed), thermocouple (ACDC-51NAV and ACDC-54NAV only)

DUAL RATED Electrical Safety CAT IV 600 V CAT III 1000 V · CE · N10140

**RECOMMENDED ACCESSORIES**

**DL248D** **Deluxe Test Leads Kit** (See Page 76)

*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**ACD-50NAV**
600A AC NAVIGATOR CLAMP

**ACD-51NAV**
600A AC TRMS NAVIGATOR CLAMP

**ACDC-52NAV**
600A AC/DC TRMS NAVIGATOR CLAMP

**ACD-53NAV**
1000A AC TRMS NAVIGATOR CLAMP

**ACDC-54NAV**
1000A AC/DC TRMS NAVIGATOR CLAMP

## Clamp Multimeters – Extend basic clamp capabilities with multimeter functions for full troubleshooting power

# ACD-10 PLUS and ACD-10 TRMS-PLUS Clamp Multimeters with Unique Thin Jaws

# ACD-14 PLUS and ACD-14 TRMS-PLUS Dual Display Digital Clamp Multimeters

**With thinner jaws than standard clamp multimeters (only 0.4"/10 mm thick), the ACD-10 PLUS, ACD-10 TRMS-PLUS, ACD-14 PLUS, and ACD-14 TRMS PLUS allow access to tight measurement areas and still accommodate conductors up to 1 inch (25 cm).**

**The ACD-14 PLUS and ACD-14 TRMS-PLUS are the professional's choice for both HVAC and electrical applications with a complete set of measurement features including dual displays that allow you to view amperage and voltage measurements simultaneously.**

- Continuity buzzer
- Hold and maximum reading functions
- Auto ranging
- Auto power off and low battery indication
- Rubber over-molded case
- Frequency is measured by either jaws or test leads (ACD-10 PLUS/ACD-10 TRMS-PLUS only)
- Microamps measurement for testing flame sensors (ACD-14 PLUS and ACD-14 TRMS-PLUS only)
- Diode test (ACD 14 PLUS and ACD-14 TRMS only)
- True-rms for more accurate readings in noisy measurement environments (ACD-10 TRMS-PLUS and ACD-14-TRMS-PLUS only)

| FEATURES | ACD-14 PLUS | ACD-14 TRMS-PLUS | ACD-10 PLUS | ACD-10 TRMS-PLUS |
|---|---|---|---|---|
| True-rms | – | • | – | • |
| AC Voltage | 4.000 V, 40.00 V, 400.0 V, 600 V | | | |
| DC Voltage | 400.0 mV, 4.000 V, 40.00 V, 400.0 V, 600 V | | | |
| AC Current | 40.00 A, 400.0 A, 600 A | | | |
| Resistance | 400.0 Ω, 4.000 kΩ, 40.00 kΩ, 400.0 kΩ, 4.000 MΩ, 40.00 MΩ | | | |
| Capacitance | 500.0 nF, 5.000 µF, 50.00 µF, 500.0 µF, 3000 µF | | | |
| Frequency | 40 Hz ➞ 400 Hz with Jaw, 10 Hz ➞ 100 kHz with test leads | | | |
| Temperature | -4 °F ➞ 999 °F (-20 °C ➞ 537 °C) | | – | – |
| Dual Displays | • | • | – | – |
| Micro Amps | • | • | – | – |
| Accommodates Conductors | up to 1.0" (25 mm) in diameter | | | |

**INCLUDED ACCESSORIES:** Test leads, battery (installed), soft carrying pouch, type-K thermocouple with banana plug (ACD-14 PLUS and ACD-14 TRMS-PLUS only), users manual

CAT III 600 V · CE · c UL us · N10140

**RECOMMENDED ACCESSORIES**

**DL248D** **Deluxe Test Leads Kit** (See Page 76)
**ELS2A** **AC Line Splitter** (See Page 18)

*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**ACD-10 PLUS**
DIGITAL CLAMP ON METER, CAP, FREQ

**ACD-10 TRMS-PLUS**
DIGITAL CLAMP ON METER, TRUE RMS, CAP, FREQ

**ACD-14 PLUS**
DUAL DISPLAY DIGITAL CLAMP-ON MULTIMETER

**ACD-14 TRMS-PLUS**
DUAL DISPLAY DIGITAL CLAMP-ON MULTIMETER, TRMS





## Safety and performance for industrial, utility or outdoor environments – CAT IV Industrial Clamp Meters

# ACD-41PQ 1000A Power Quality Clamp
# ACD-45PQ Compact Power Quality Clamp

**The ACD-41PQ provides a simple and effective way to verify if the electrical systems are affected by harmonics with power analysis functions to enhance troubleshooting. The compact ACD-45PQ measures energy and power on single and three-phase systems (balanced and unbalanced).**

- Automatic selection of ac volts, dc volts or ac amps
- Total Harmonic Distortion to 51st harmonic (ACD-41PQ)
- Dual-display power factor readout with KWh recording (ACD-45PQ)
- Ultra slim jaws clamp around conductors in confined and difficult-to-reach-places
- Large easy-to-read LCD with backlight
- Automatic polarity
- Audible continuity
- Auto power-off
- Low battery indication
- Peak hold
- Data hold
- Optional PC communication capabilities with USB-KIT2

| FEATURE | ACD-41PQ | ACD-45PQ |
|---|---|---|
| True-rms | • | |
| AC Current | 40.00 A, 400.0 A, 1000 A | 40.00 A, 400.0 A, 600 A |
| AC/DC Voltage | 600.0 V | |
| Resistance | 999.9 Ω | |
| Continuity | • | |
| Temperature | -58 °F ➞ 572 °F (-50 °C ➞ 300 °C) | - |
| Frequency | 5.00 Hz ➞ 500.0 Hz | |
| Active Power (W) | 0 kW ➞ 600.0 kW | 0 kW ➞ 360.0 kW |
| Reactive Power (VAR) | 0 kVAR ➞ 600.0 kVAR | 0 kVAR ➞ 360.0 kVAR |
| Apparent Power (VA) | 0 kVA ➞ 600.0 kVA | 0 kVA ➞ 360.0 kVA |
| Power Factor | 0.10 ➞ 0.99 | |
| Energy (KWHr) | – | • |
| Total Harmonic Distortion (THD%) | 0.0 % ➞ 99 % | – |
| Accommodates Conductors | up to 1.77" (45 mm) in diameter | up to 1.02" (26 mm) in diameter |

**INCLUDED ACCESSORIES:** Carrying case, test leads, batteries (installed), type-K thermocouple, users manual

CAT III 600 V · CE · c UL us · N10140

**RECOMMENDED ACCESSORIES**

**DL248D** **Deluxe Test Leads Kit** (See Page 76)
**ELS2A** **AC Line Splitter** (See Page 18)
**USB-KIT2** **PC software and connection kit** (See Page 79)

# RS-3/RS-1007 PRO CAT IV Analog Clamp Meter

**Take these clamp meters to extremes. Digital clamp meters have LCD screens that tend to freeze below 32 °F (0 ˚C) but the Amprobe analog clamp meters can take extreme heat or cold and keep on measuring amps and volts– without problems or batteries.**

- Easy-to-read rotary scale
- Works in temperatures from 5° to 122°F
- Does not need batteries to measure volts or amps
- Operates on 50 and 60Hz frequencies
- Pointer lock - data hold

| FEATURE | RS-3 PRO | RS-1007 PRO |
|---|---|---|
| AC Voltage | 150 V, 300 V, 600 V | |
| AC Current | 6 A, 15 A, 40 A, 100 A, 300 A | 15 A, 40 A, 100 A, 300 A, 1000 A |
| Resistance | 1000 Ω | |
| Continuity | • | |
| Accommodates Conductors | up to 1.64" (41 mm) in diameter | up to 1.88" (47 mm) in diameter |

**INCLUDED ACCESSORIES:** Test leads, battery (installed, for resistance measurement only), users manual, carrying case

CAT IV 600 V · CE · c UL us · N10140

**RECOMMENDED ACCESSORIES**

**DL248D** **Deluxe Test Leads Kit** (See Page 76)

*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**ACD-41PQ**
1000A CLAMP-ON POWER QUALITY METER W/THD-F

**ACD-45PQ**
600A POWER QUALITY CLAMP

**RS-1007 PRO**
CLAMP METER ANALOG CAT IV 600V-1000A, 2 INCH JAW

**RS-3 PRO**
CLAMP METER ANALOG CAT IV 600V-300A, 1 INCH JAW

CAT IV Industrial Clamp Meters – Safety and performance for industrial, utility or outdoors environments

## ACDC-3400 IND and ACD-3300 IND CAT IV Clamp Meters

**If an industrial or utility testing application demands a higher level of safety, reach for these CAT IV rated Clamp Meters.**

- Extra large jaws to accommodate wide wires
- Peak hold
- Audible continuity
- Auto and manual ranging
- Auto power-off
- Data hold
- Backlight
- Diode test
- True-rms provides accuracy and dependability

| FEATURE | ACD-3300 IND | ACDC-3400 IND |
|---|---|---|
| DC Voltage | 660.0 mV, 6.600 V, 66.00 V, 660.0 V, 1000 V | |
| AC Voltage | 660.0 mV, 6.600V, 66.00V, 660.0V, 750V | |
| AC Current | 66.00 A, 660.0 A, 1000 A | |
| DC Current | – | 660.0 A, 1000 A |
| Resistance | 660.0 Ω, 6.600 kΩ, 66.00 kΩ, 660.0 kΩ, 6.600 MΩ, 66.00 MΩ | |
| Capacitance | 6.600 nF, 66.00 nF, 660.0 nF, 6.600 µF, 66.00 µF, 660.0 µF, 6.6 mF | |
| Frequency | 66.00 Hz, 660.0 Hz, 6.600 kHz, 66.00 kHz, 660.0 kHz, 1.000 MHz | |
| Continuity | • | |
| Temperature | -30 °F ➞ 1832 °F (-35 °C ➞ 1000 °C) | – |
| Accommodates Conductors | up to 2.0" (51 mm) in diameter | |

**INCLUDED ACCESSORIES:** Deluxe carrying case, test leads, type-K thermocouple (for ACD-3300 only), test leads, battery (installed), users manual, type-K thermocouple (ACD-3300 IND only)

DUAL RATED Electrical Safety CAT IV 600 V CAT III 1000 V · CE · CSA US · N10140

**RECOMMENDED ACCESSORIES**

**DL248D** **Deluxe Test Leads Kit**
(See Page 76)

*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**ACD-3300 IND**
AC 1000A INDUSTRIAL CLAMP
**ACDC-3400 IND**
ACDC 1000A INDUSTRIAL CLAMP





For small conductors – Compact Clamps

## AC50A Leakage Current Clamp Multimeter

**Great for applications requiring measurement of leakage and fault currents, this clamp measures low AC current down to microamps.**

- Min/Max control to see largest or smallest values in a series of measurements
- Relative value measurement to determine differentials
- Data hold to freeze measurement value on the display
- Digital display with analog bargraph
- Auto power-off to save battery life
- Minimum Resolution 0.01mA

Electrical Safety CAT II 600 V · CE · N10140

## LH41A AC/DC Low Current Clamp Meter

**Make precise low-current measurements with 1 mA resolution.**

- Data hold
- Auto power-off
- Auto zero button to zero display for dc

| FEATURE | AC50A | LH41A |
|---|---|---|
| AC Voltage | 400.0 V | – |
| AC Current | 40.00 mA, 400.0 mA, 4.000 A, 40.00 A, 60.0 A | 4.000 A, 40.00 A |
| DC Current | – | 4.000 A, 40.00 A |
| Resistance | 400 Ω | – |
| Continuity | • | – |
| Accommodates Conductors | up to 1.2" (30 mm) in diameter | up to 0.78" (20 mm) in diameter |

**INCLUDED ACCESSORIES:** Batteries (installed), users manual, test leads (AC50A only), carrying case (AC50A only)

CE · N10140

For data logging – Recording Clamp Meters

## ACD-16 TRMS-PRO Recording Clamp Meter

**Need the perfect tool to troubleshoot a system? The ACD-16 TRMS-PRO provides a full range of measurements, enhanced with data logging capabilities, to catch what the eye can't see.**

- Data-logging of 5400 points
- Audible continuity
- Auto power-off
- Automatic polarity
- Low battery indication
- Data hold
- Voltage overload protection for all functions up to 600 V ac/dc

| FEATURE | ACD-16 TRMS-PRO |
|---|---|
| True-rms | • |
| AC Voltage | 600.0 V |
| DC Voltage | 600.0 V |
| AC Current | 40.0 A, 400.0 A, 1000 A |
| Resistance | 999.9 Ω |
| Frequency | 6.00 hz ➞ 600.0 Hz |
| Temperature | -58 °F ➞ 572 °F (-50 °C ➞ 300 °C) |
| Accommodates Conductors | up to 1.77" (45 mm) in diameter |

**INCLUDED ACCESSORIES:** Carrying case, thermocouple, test leads, batteries (installed), users manual

Electrical Safety CAT III 600 V · CE · c UL us · N10140

**RECOMMENDED ACCESSORIES**

**DL248D** **Deluxe Test Leads Kit**
(See Page 76)
**ELS2A** **AC Line Splitter**
(See Page 18)
**USB-KIT2** **PC software and connection kit**
(See Page 79)

*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**AC50A**
COMPACT CLAMP METER FOR LEAKAGE CURRENT
**LH41A**
AC/DC CLAMP 4/40A 1MA RESOLUTION
**ACD-16 TRMS-PRO**
1000A DATA-LOGGING CLAMP-ON MULTIMETER TRMS

AC40C AD40B

## AC40C Mini-Clamp Digital Multimeter
## AD40B Mini-Clamp Ammeter
## ACDC-400 Digital Clamp Multimeter

**The Amprobe AC40C digital multimeter and AD40B Ammeter won't take much space in your tool kit and offer quick and accurate measurements. The ACDC-400 is a full-featured clamp suitable for facility maintenance to field service with wide measurement capabilities.**

- 10 mA resolution in the 40A range
- 4000-count, easy-to-read display
- Analog bar graph
- Autoranging
- Data hold
- Auto power-off
- VolTect™ non-contact voltage detection (AC40C only)

| FEATURE | AD40B | AC40C | ACDC-400 |
|---|---|---|---|
| AC Voltage | – | 400.0 V, 600 V | 400.0 mV, 4.000 V, 40.00 V, 400.0 V, 600 V |
| DC Voltage | – | 400.0 V, 600 V | 400.0 mV, 4.000 V, 40.00 V, 400.0 V, 600 V |
| AC Current | 40.00 A, 400.0 A | | |
| DC Current | – | | 400 A |
| Resistance | – | 400 Ω | 400.0 Ω, 4.000 kΩ, 40.00 kΩ, 400.0 kΩ, 4.000 MΩ, 40.00 MΩ |
| Accommodates Conductors | up to 1.0" (25 mm) in diameter | | up to 1.18" (30 mm) in diameter |

**INCLUDED ACCESSORIES:** Users manual, carrying case, batteries (installed), test leads (AC40C and ACDC-400 only)

CAT III 600 V · CE · CSA US · N10140

**RECOMMENDED ACCESSORIES**

**DL248D** **Deluxe Test Leads Kit**
(See Page 76)
**ELS2A** **AC Line Splitter**
(See Page 18)

## ACD-6 PRO Digital Clamp Meter

**This high-current clamp doubles as a multimeter for AC and DC voltage, resistance and continuity.**

- Auto and manual ranging
- Relative zero mode
- Auto power-off
- Data hold
- Diode test
- Audible continuity

| MEASUREMENTS | ACD-6 PRO | BEST ACCURACY |
|---|---|---|
| DC Voltage | 400.0 mV, 4.000 V, 40.00 V, 400.0 V, 600 V | 1.0 % + 3d |
| AC Voltage | 600 V | 2.0 % + 5d |
| AC Current | 400.0 A, 1000 A | 1.5 % + 5d |
| Resistance | 400.0 Ω, 4.000 kΩ, 40.00 kΩ, 400.0 kΩ, 4.000 MΩ, 40.00 MΩ | 1.0 % + 4d |
| Accommodates Conductors | up to 1.77" (45 mm) in diameter | - |

**INCLUDED ACCESSORIES:** Carrying case, batteries (installed), users manual

CAT III 600 V · CE · c UL us · N10140

**RECOMMENDED ACCESSORIES**

**DL248D** **Deluxe Test Leads Kit**
(See Page 76)
**ELS2A** **AC Line Splitter**
(See Page 18)

*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**AC40C**
MINI-CLAMP DMM, 400A
**AD40B**
400A MINI-CLAMP AMMETER
**ACDC-400**
DIGITAL AC/DC CLAMP-ON MULTIMETER
**ACD-6 PRO**
DIGITAL CLAMP-ON METER





## ACDC-100 and ACDC-100 TRMS 1000A Digital Clamp Meters

**Here's where accuracy, quality, and proven technology meet. The ACDC-100 TRMS offers superior AC/DC measurement capabilities, highest product quality and enhanced ergonomic design.**

- Relative zero mode
- Auto power-off
- Data hold
- MAX capture function for inrush current measurements (30 mS response)
- Diode test
- Audible continuity
- "Third hand" test probe holder
- Rubber over-molded case with built-in probes storage
- True-rms and backlight (ACDC-100 TRMS only)

| FEATURE | ACDC-100 | ACDC-100 TRMS |
|---|---|---|
| True-rms | – | • |
| AC Current | 400.0 A, 800 A | |
| DC Current | 400.0 A, 1000 A | |
| Voltage AC/DC | 400.0 mV, 4.000 V, 40.00 V, 400.0 V, 600 V | |
| Resistance | 400.0 Ω, 4.000 kΩ, 40.00 kΩ, 400.0 kΩ, 4.000 MΩ, 40.00 MΩ | |
| Continuity | • | |
| Capacitance | 500.0 nF, 5.000 µF, 50.00 µF, 500.0 µF, 3000 µF | |
| Accommodates Conductors | up to 2.0" (50 mm) in diameter | |

**INCLUDED ACCESSORIES**: Deluxe carrying case, test leads, batteries (installed), users manual

CAT III 600 V · CE · c UL us · N10140

**RECOMMENDED ACCESSORIES**

**DL248D** **Deluxe Test Leads Kit**
(See Page 76)
**ELS2A** **AC Line Splitter**
(See Page 18)

## ACD-15 TRMS-PRO Clamp Multimeter

**This professional meter improves measurement performance and reliability.**

- VolTect™ non-contact voltage level detection
- Diode test
- Auto-check feature automatically selects dc V, ac V or resistance
- Auto and manual ranging
- Auto power-off
- Low battery indication
- Data hold
- Backlight
- True-rms provides accuracy and dependabililty

| FEATURE | ACD-15 TRMS PRO |
|---|---|
| True-rms | • |
| AC Current | 400.0 A, 2000 A |
| Voltage AC/DC | 6.000 V, 60.00 V, 600.0 V |
| Resistance | 6.000 kΩ, 60.00 kΩ, 600.0 kΩ, 6.000 MΩ |
| Continuity | • |
| Frequency | 10 Hz ➡ 30 kHz |
| Capacitance | 100.0 nF, 1000 nF, 10.00 µF, 100.0 µF, 2000 µF |
| VolTect™ Non-contact Voltage | • |
| Accommodates Conductors | up to 1.77" (45 mm) in diameter |

**INCLUDED ACCESSORIES**: Deluxe carrying case, test leads

CAT III 600 V · CE · c UL us · N10140

**RECOMMENDED ACCESSORIES**

**DL248D** **Deluxe test leads kit**
(See Page 76)
**ELS2A** **AC line splitter**
(See Page 18)

*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**ACD-15 TRMS-PRO**
2000A DIGITAL CLAMP-ON MULTIMETER, TRMS
**ACDC-100**
AC/DC CLAMP-ON
**ACDC-100 TRMS**
AC/DC CLAMP-ON TRMS VERSION

## Specialty Clamp Meters – Tools that defy categories

*AC68C*

*AC75B*

# AC75B Clamp Meter, Multimeter and Thermometer

# AC68C True-rms 600A Clamp Meter

**The AC75B is a clamp meter, multimeter and thermometer in one that prepares you for almost any challenge in HVAC electrical or industrial maintenance applications. The AC68C measures non-linear load current with true-rms readings.**

- 600 A ac current
- AC/DC 750 V/1000 V
- Full overload protection
- Auto power-off
- Low battery indicator

| FEATURE | AC75B | AC68C |
|---|---|---|
| True-rms | – | • |
| AC Voltage | 4.000 V, 40.00 V, 400.0 V, 750 V | 600 V |
| DC Voltage | 4.000 V, 40.00 V, 400.0 V, 1000 V | 400.00 V, 600 V |
| AC Current | 400.00 A, 600 A | |
| DC Current | – | 400.00 A, 600 A |
| Micro Amps | 400.00 µA, 4000 µA | – |
| Resistance | 400 Ω, 4 kΩ, 40 kΩ, 400 kΩ, 4 MΩ, 40 MΩ | 4.000 kΩ |
| Continuity | • | |
| Capacitance | 4 nF, 40 nF, 400 nF, 4µF, 40µF, 400 µF, 4mF | – |
| Frequency | – | 4 kHz, 20 kHz |
| Temperature | -40 °F ➞ 1000 °F (-40 °C ➞ 400 °C) | – |
| Accommodates Conductors | up to 1.3" (35 mm) in diameter | |

**INCLUDED ACCESSORIES:** (AC68C) Users manual, carrying case, test leads; (AC75B) one pair test leads, temperature adapters (TA-1), type- K temperature probe (TP255A), 9 V battery (installed), users manual and carrying case with belt loop.

CAT III 600 V · CE · CSA US · N10140

**RECOMMENDED ACCESSORIES**

**DL248D** **Deluxe Test Leads Kit**
(See Page 76)

## Clamp Meter Accessories

# ELS2A AC Line Splitter

**Measure the current on a 2-wire or 3-wire power cord up to 15A without having to cut off the plug and separate the conductors, or open electrical boxes on 120V lines. Use with any Amprobe clamp meter.**

- Two measurement loops, 1X and 10X for increased sensitivity
- Built-in voltage measurement jacks to check for voltage sags and surges
- Rated for 120V, 15 amps

*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE®
HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**AC75B**
CLAMP METER
**AC68C**
CLAMP METER
**ELS2A**
AC LINE SPLITTER

# Digital Multimeters

**CHOICE**
**Part of a great value is getting exactly what you need in a tool – nothing more or less. With Amprobe's broad selection of digital multimeters, you can find the perfect match for any job. From the industrial meters safety-rated for CAT IV electrical environments, to simple pocket-sized meters, you'll find a digital multimeter that fits your needs .**

AMPROBE®
HARD AT WORK SINCE 1948.

# Digital Multimeter Selection Guide

| FEATURES/MODEL# | AM-250 | AM-270 | AM-140-A | AM-160-A | AM-220 | AM-240 | 30XR-A | 33XR-A | 34XR-A | 37XR-A | 38XR-A |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Page 22 | Page 22 | Page 23 | Page 23 | Page 24 | Page 24 | Page 26 | Page 26 | Page 26 | Page 26 | Page 26 |
| | Professional Digital Multimeters | | Precision Digital Multimeters | | Compact Digital Multimeters | | XR Full-Size Digital Multimeter | | | | |
| Safety Ra>ng | CAT III 600 V | CAT IV 600 V | CAT IV 600V | CAT IV 600 V | CAT III 600 V | CAT III 600 V | CAT III 600 V | CAT III 600 V | CAT III 600 V | CAT III 600 V | CAT III 600 V |
| True rms | | • | • | • | | | | | • | • | • |
| AC Voltage (V) | 1000 V | 1000 V | 1000 V | 1000 V | 600 V | 600 V | 500 V | 1000 V | 1000 V | 1000 V | 1000 V |
| DC Voltage (V) | 1000 V | 1000 V | 1000 V | 1000 V | 600 V | 600 V | 500 V | 1000 V | 1000 V | 1000 V | 1000 V |
| AC Current (A) | 10 A | 10 A | 10 A | 10 A | 10 A | 10 A | 10 A | 10 A | 10 A | 10 A | 10 A |
| DC Current (A) | 10 A | 10 A | 10 A | 10 A | 10 A | 10 A | 10 A | 10 A | 10 A | 10 A | 10 A |
| Micro Amps | • | • | • | • | • | • | • | • | • | • | • |
| Resistance | • | • | • | • | • | • | • | • | • | • | • |
| Capacitance | • | • | • | • | • | • | | • | • | • | • |
| Inductance | | | | | | | | | | • | |
| Frequency | | • | • | • | | | | • | • | • | • |
| Duty Cycle | | | | • | • | • | | | • | • | • |
| Relative Zero | • | | • | • | • | • | | • | • | • | • |
| Temperature | • | • | | • | | • | | • | • | | • |
| Diode Test | • | • | • | • | • | • | • | • | • | • | • |
| Continuity Beeper | • | • | • | • | • | • | • | • | • | • | • |
| Non-Contact Voltage | | | | | | | • | | | | |
| Logic Test | | | | | | | | | | • | |
| Autoranging | • | • | • | • | • | • | | | • | • | • |
| Battery Test | | | | | | | • | | | | |
| Motor Rotation (Phase) | | | • | • | | | | | | | |
| DC Loop Current 4-20mA | | | • | • | | | | | | | • |
| dBm reading | | | • | • | | | | | | • | • |
| Backlight | • | • | • | • | • | • | • | • | • | • | • |
| Bar Graph | | • | • | • | | | • | • | • | • | • |
| Data Hold | • | • | • | • | • | • | • | • | • | • | • |
| Peak Hold (Crest) | | • | • | • | | | | • | • | • | • |
| AutoTest Function (V,A,R) | | | | | | | | | | | |
| Data Logging | | • | • | • | | | | | | | |
| PC Interface Capabilities | | • | • | • | | | | | | | |
| Auto Power-Off | | • | • | • | • | • | • | • | • | • | • |
| Work Light (LED) | | | | | | | | | | | |



| FEATURES/MODEL# | 5XP-A | 15XP-B | 35XP-A | HD-110C | HD-160C | DM73C | DM7C | DM9C | DM78C | PM51A | PM55A |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Page 25 | Page 25 | Page 25 | Page 27 | Page 27 | Page 28 | Page 28 | Page 28 | Page 28 | Page 24 | Page 24 |
| | XP Compact Series Digital Multimeters | | | Heavy Duty Digital Multimeters | | Pen-style DMM | Residential Digital Multimeters | | Pocket Digital Multimeters | | |
| Safety Rating | CAT III 600 V | CAT III 600 V | CAT III 600 V | CAT IV 1000 V | CAT IV 1000 V | CAT II 600 V | CAT II 600 V | CAT II 600 V | CAT II 600 V | CAT II 600 V | CAT II 600 V |
| True rms | | | • | • | | | | | | | |
| AC Voltage (V) | 1000 V | 1000 V | 1000 V | 1000 V | 600 V | 600 V | 600 V | 600 V | 500 V | 600 V | 600 V |
| DC Voltage (V) | 1000 V | 1000 V | 1000 V | 1000 V | 600 V | 600 V | 600 V | 600 V | 500 V | 600 V | 600 V |
| AC Current (A) | 10 A | 10 A | 10 A | 10 A | | 2000 µA | 10 A | 10 A | 10 A | | 2000 µA |
| DC Current (A) | 10 A | 10 A | 10 A | 10 A | | 2000 µA | 10 A | 10 A | 10 A | | 2000 µA |
| Micro Amps | • | • | • | • | | • | • | • | • | | • |
| Resistance | • | • | • | • | • | • | • | • | • | • | • |
| Capacitance | • | • | • | • | • | • | • | • | | • | • |
| Inductance | | | | | | | | | | | |
| Frequency | | • | • | • | • | • | • | • | | • | • |
| Duty Cycle | | | | • | | | • | • | | | |
| Relative Zero | • | | • | • | | | • | • | | | |
| Temperature | • | • | | • | | | | • | | | |
| Diode Test | • | • | • | • | • | • | • | • | • | • | • |
| Continuity Beeper | • | • | • | • | • | • | • | • | • | • | • |
| Non-Contact Voltage | | | | | | • | | | • | | • |
| Logic Test | | | | | | | | | | | |
| Autoranging | • | • | • | • | • | • | • | • | | • | • |
| Battery Test | | | | | | | | | • | | |
| Motor Rotation (Phase) | | | | | | | | | | | |
| DC Loop Current 4-20mA | | | • | • | | | | | | | |
| dBm reading | | | • | • | | | | | | | |
| Backlight | • | • | • | • | | | • | • | • | | |
| Bar Graph | | • | • | • | | | | | • | | |
| Data Hold | • | • | • | • | • | • | • | • | • | • | • |
| Peak Hold (Crest) | | • | • | • | | | | | | | |
| AutoTest Function (V,A,R) | | | | | | • | | | | | • |
| Data Logging | | • | • | • | | | | | | | |
| PC Interface Capabilities | | • | • | • | | | | | | | |
| Auto Power-Off | | • | • | • | • | • | • | • | • | • | • |
| Work Light (LED) | | | | | | | | | | | |

## AM-270 and AM-250 Multimeters

**If your electrical or HVAC applications take you outdoors or if you work on wiring directly connected to utility transformers or main panels, your meter's CAT safety rating is important. The AM-270 is rated CAT IV 600V / CAT III 1000 V. For indoors only, choose the CAT III 600V / CAT II 1000V rated AM-250. Both models measure a complete range of electrical parameters plus temperature, capacitance and a micro amps function for HVAC.**

- Auto and manual ranging
- Data hold
- Audible continuity
- Large, easy-to-read LCD display with backlight
- Diode test and relative zero mode (AM-250 only)
- Peak hold with 30ms response time (AM-250 only)
- Beep-Jack audible warning against improper connection (AM-250 only)
- True-rms provides accuracy and dependability (AM-270 only)

| FEATURE | AM-250 | AM-270 |
|---|---|---|
| AC Voltage | 400.0 mV, 4.000 V, 40.00 V, 400.0 V, 1000 V | 50.00 mV, 500.0 mV, 5.000 V, 50.00 V, 500.0 V, 1000 V |
| DC Voltage | 400.0 mV, 4.000 V, 40.00 V, 400.0 V, 1000 V | 50.00 mV, 500.0 mV 5.000 V, 50.00 V, 500.0 V, 1000V |
| Resistance | 400.0 Ω, 4.000 kΩ, 40.00 kΩ, 400.0 kΩ 4.000 MΩ, 40.00 MΩ, | 50.00 Ω, 500.0 Ω, 5.000 kΩ, 50.00 kΩ, 500.0 kΩ, 5.000 MΩ, 50.00 MΩ |
| AC / DC Current | 40.00 µA, 400.0 µA, 400.0 mA, 4000 mA, 4.000 A, 10.00 A | 50.00 µA, 500.0 µA, 500.0 mA, 5000 mA, 5.000 A, 10.00 A |
| Frequency | 5.000 Hz, 50.00 Hz, 500.0 Hz, 5.000 kHz, 50.00 kHz, 500.0 kHz, 1.000 MHz | 5Hz ➞ 125 kHz for all setups except: 5Hz ➞ 1kHz for 500V and 1000V ranges 5 Hz ➞ 20 kHz for 50 V range |
| Capacitance | 500.0 nF, 5.000 µF, 50.00 µF, 500.0 µF , 3000 µF | 50.00 nF, 500.0 nF 5.000 µF, 50.00 µF, 500.0 µF, 9999 µF |
| Temperature | -4 °F ➞ 572 °F (-20 °C ➞ 300 °C) | -58 °F ➞ 1832 °F (-50 °C ➞ 1000 °C) |
| Data Recording | – | Records peak, max, min, max-min |
| Relative Zero Mode | – | • |

**INCLUDED ACCESSORIES:** Test leads (pair), banana plug K-type thermocouple, batteries (installed), users manual

*AM-250 only* *AM-270 only*

N10140

**RECOMMENDED ACCESSORIES**

| | |
|---|---|
| **DL248D** | **Deluxe Test Leads Kit** (See Page 76) |
| **CT235A** | **Clamp Attachment** |
| **CT237B** | **Clamp Attachment** |
| **CT238A** | **Clamp Attachment** (See Page 77) |

### Do you need CAT IV?

**The closer you work to a power source, the greater the protection your test tools must provide. You need CAT IV safety-rated tools if you're:**

- **Making measurements outdoors**
- **Working on wiring that connects buildings to utility transformers**
- **Directly connecting to the main panel, indoors**

**For additional information about CAT environments, see our Safety Reference Guide, page 36.**

*For detailed specifications go to **www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**AM-270**
TRUE-RMS INDUSTRIAL MULTIMETER
**AM-250**
PROFESSIONAL ELECTRICAL MULTIMETER





## AM-140-A and AM-160-A True-rms Precision Digital Multimeters with PC Connection

**These true-rms commercial-grade digital multimeters offer more features and better accuracy at a great price. Frequency, capacitance, duty cycle, temperature, analog bar graph and PC interface are just a handful of features available on these meters.**

- Precision accuracy to 0.02% (AM-160-A only)
- High speed analog bar graph
- Dual temperature (AM-160-A only)
- Optical isolated PC interface for safe data downloads
- Crest (peak hold), min/max, max-min recording
- Audible continuity
- Auto and manual ranging
- Intelligent auto power off
- Data hold
- Relative zero mode
- Audible and visual warning against improper plug-in
- Large, easy-to-read LCD display with back light
- True-rms provides accuracy and dependability

| FEATURE | AM-140-A | AM-160-A | BEST ACCURACY |
|---|---|---|---|
| AC Voltage | 500.00 mV , 5.0000 V, 50.000 V, 500.00 V, 1000.0 V | | +/- (0.08 % rdg + 60 LSD) @ 45 Hz ➞ 300 Hz |
| DC Voltage | 500.00 mV, 5.0000 V, 50.000 V, 500.00 V, 1000.0 V | | +/- (0.03 % rdg + 2 LSD) @ 0 V ➞ 50 V |
| Resistance | 500.00 Ω, 5.0000 kΩ, 50.000 kΩ, 500.00 kΩ, 5.0000 MΩ, 50.000 MΩ | | +/- (0.10 % rdg + 6 LSD) |
| AC / DC Current | 500.00 µA , 5000.0 µA; 50.000 mA, 500.00 mA; 5.0000 A, 10.000 A | | +/- (1.0 % rdg + 40 LSD) @ 50 Hz / 60 Hz |
| Frequency | 5.0000 Hz ➞ 200.000 kHz | | +/- (0.002 % rdg + 4 LSD) |
| Capacitance | 50.00 nF, 500.0 nF, 5.000 µF, 50.00 µF, 500.0 µF, 9999 µF | | +/- (2.0 % rdg + 3 LSD) @ 50 nF ➞ 50 µF ranges |
| Temperature | – | Dual thermocouple -58 °F ➞ 1832 °F (-50 °C ➞ 1000 °C) | +/- (0.3% rdg + 2 °F), +/- (0.3% rdg + 1 °C) |
| Duty Cycle | 0.1 % ➞ 99.99 % | – | +/-(3 LSD / kHz + 3 LSD) |

**INCLUDED ACCESSORIES:** battery (installed), users manual, test leads, type-K thermocouple (AM-160-A only)

N10140

**RECOMMENDED ACCESSORIES**

| | |
|---|---|
| **DL248D** | **Deluxe Test Leads Kit** (See Page 76) |
| **CT235A** | **Clamp Attachment** |
| **CT237B** | **Clamp Attachment** |
| **CT238A** | **Clamp Attachment** (See Page 77) |
| **USB KIT3** | **PC Software and Connection Kit** (See Page 79) |

*For detailed specifications go to **www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**AM-140-A**
PRECISION TRUE-RMS DIGITAL MULTIMETERS WITH PC CONNECTION
**AM-160-A**
PRECISION TRUE-RMS DIGITAL MULTIMETERS WITH PC CONNECTION

## PM Series Pocket Multimeters

**Great things do come in small packages. Get innovative features, a full set of measurement functions and high safety ratings in an ultra-compact size. Only 3/8" thick, each meter weighs less than 3 ounces.**

- Easy, one-touch button control
- Oversize, easy-to-read digital display
- VolTect™ non-contact voltage detection (PM55A only)
- Auto-Tect™ automatically selects ac volts, dc volts or resistance, for convenience (PM55A only)
- Low Z input impedance eliminate ghost voltages
- Hi Z input impedance for electronic circuitry (PM55A only)
- Continuity beeper
- Diode test
- Data hold
- 30 ms high speed max hold
- Autoranging
- Auto power off

| FEATURE | PM51A | PM55A |
|---|---|---|
| Voltage AC/DC | 400.0 mV, 4.000 V, 40.00 V, 400.0 V, 600 V | 6.000, 60.00, 600.0 V |
| Resistance | 400.0 Ω, 4.000 kΩ, 40.00 kΩ, 400.0 kΩ, 4.000 MΩ, 40.00 MΩ | 600.0 Ω, 6.000 kΩ, 60.00 kΩ, 600.0 kΩ, 6.000 MΩ |
| AC/DC Current | – | 400.0 µA, 2000 µA |
| Frequency | 400 Hz, 4 kHz, 40 kHz, 400 kHz, and 1 MHz | 10.00 Hz → 30.00 kHz |
| Capacitance | 500.0 nF, 5.000 µF, 50.00 µF, 500.0 µF, 3000 µF | 100.0 nF, 1000 nF, 10.00 µF, 100.0 µF, 2000 µF |
| VolTect™ Non-Contact Voltage Detection | – | • |

**INCLUDED ACCESSORIES:** Carrying case, battery (installed), users manual

DUAL RATED Electrical Safety CAT III 300 V CAT II 600 V

N10140

## Compact Multimeters - Compact and capable

## AM-220 and AM-240 Digital Multimeters

**These well-built meters pack a full set of features into a small package.**

- Large LCD display with backlight
- AC/DC microamps for diagnosing sensors
- Diode test
- Audible continuity test
- Data hold
- Min/max and relative measurements
- Auto and manual ranging
- Auto power-off (can be disabled)
- Tilt stand

| FEATURE | AM-220 | AM-240 |
|---|---|---|
| AC Voltage | 400 mV, 4.000 V, 40.00 V, 400.0 V, 600 V | |
| DC Voltage | 400 mV, 4.000 V, 40.00 V, 400.0 V, 600 V | |
| AC / DC Current | 400.0 µA, 4000 µA, 40.00 mA, 400.0 mA, 4.000 A, 10.00 A | |
| Resistance | 400.0 Ω, 4.000 kΩ, 40.00 kΩ, 400.0 kΩ, 4.000 MΩ, 40.00 MΩ | |
| Capacitance | 40.00 nF, 400.0 nF, 4.000 µF, 40.00 µF, 400.0 µF, 4000 µF | |
| Frequency | 10.00 Hz, 100.0 Hz, 1000 Hz, 10.00 kHz, 100.0 kHz, 1000 kHz, 10 MHz | |
| Continuity | • | |
| Duty Cycle | 0.1 % - 99.9 % | |
| Temperature | – | -50 °C → 750 °C (-58 °F → 1382 °F) |

**INCLUDED ACCESSORIES:** Test leads, battery (installed), users manual, type-K thermocouple (AM-240 only)

Electrical Safety CAT III 600 V

N10140

**RECOMMENDED ACCESSORIES**

| | |
|---|---|
| **DL248D** | **Deluxe Test Leads Kit** (See Page 76) |
| **CT235A** | **Clamp Attachment** |
| **CT237B** | **Clamp Attachment** |
| **CT238A** | **Clamp Attachment** (See Page 77) |

*For detailed specifications go to **www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**PM51A**
POCKET MULTIMETER
**PM55A**
POCKET MULTIMETER
**AM-220**
DIGITAL MULTIMETER
**AM-240**
DIGITAL MULTIMETER





## XP Series Digital Multimeters

**Get superior features and accuracy in a smaller form factor. For residential, commercial and general troubleshooting applications, the 5XP-A offers both economy and unique features like VolTect™ non-contact voltage detection.**

**15XP-B is the right choice for electronics engineers and field service technicians, featuring TTL logic test for digital circuits, diode test for component level troubleshooting, a special 2000 MΩ measurement range, and an integrated tilt stand for convenience on the bench.**

**The compact, full-featured 35XP-A offers all the right features for HVAC and plant maintenance. It measures temperature, plus capacitance for motor run/start test, and offers 0.1 µA resolution for flame sensor testing.**

- Auto ranging display for faster measurements
- VolTect™ non-contact voltage detection
- Magne-Grip™ holder with magnetic hanging strap frees both hands for work
- Low battery Indicator
- Data hold freezes display to "hold" measurement reading (15XP-B and 35XP-A only)
- Auto power-off (35XP-A only)

| FEATURE | 5XP-A | 15XP-B | 35XP-A |
|---|---|---|---|
| DC Voltage | 200.0 mV, 2.000 V, 20.00 V, 200.0 V, 1000 V | | 400.0 mV, 4.000 V, 40.00 V, 400.0 V, 1000 V |
| AC Voltage | 200.0 mV, 2.000 V, 20.00 V, 200.0 V, 750 V | | 400.0 mV, 4.000 V, 40.00 V, 400.0 V, 750 V |
| Current AC/DC | 200.0 µA, 2.000 mA, 20.00 mA, 200.0 mA | 200.0 µA, 2.000 mA, 20.00 mA, 200.0 mA, 2 A | 400.0 µA, 4.000 µA, 40.00 mA, 400.0 mA, 2 A |
| Resistance | 200.0 Ω, 2.000 kΩ, 20.00 kΩ, 200.0 kΩ, 2.000 MΩ, 20.00 MΩ | 200.0 Ω, 2.000 kΩ, 20.00 kΩ, 200.0 kΩ, 2.000 MΩ, 20.00 MΩ, 2000 MΩ | 400.0 Ω, 4.000 kΩ, 40.00 kΩ, 400.0 kΩ, 4.000 MΩ. 40.00 MΩ |
| Continuity Beeper | • | | |
| VolTect™ Non-Contact Voltage Detection | 70 VAC → 600 VAC (50 Hz → 60 Hz) | | |
| Capacitance | - | | 4.000 nF, 40.00 nF, 4.000 µF, 40.00 µF, 400.0 µF, 4.000 mF |
| Frequency | - | | 4,000 kHz, 40.00 kHz, 400,0 kHz, 1 MHz |
| Temperature | - | | -4 °F → 1832 °F (-20 °C → 1000 °C) |
| Logic test | - | TTL, 20 mHz | - |
| Battery Test | 1.5 V, 9 V | - | |

**INCLUDED ACCESSORIES:** Carrying case, Magne-Grip™ holder with magnetic hanging strap, users manual, test leads, type-K thermocouple (35XP-A only)

DUAL RATED Electrical Safety CAT III 300 V CAT II 600 V

N10140

**RECOMMENDED ACCESSORIES**

| | |
|---|---|
| **DL248D** | **Deluxe Test Leads Kit** (See Page 76) |
| **CT235A** | **Clamp Attachment** |
| **CT237B** | **Clamp Attachment** |
| **CT238A** | **Clamp Attachment** (See Page 77) |

*For detailed specifications go to **www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**5XP-A**
DIGITAL MULTIMETER
**15XP-B**
DIGITAL MULTIMETER
**35XP-A**
DIGITAL MULTIMETER

## XR Series Multimeters

**This family of full-size digital multimeters lets you customize features and functions to your electronic, electrical, plant maintenance or HVAC applications.**

**For non-contact voltage testing, Amprobe VolTect™ technology is built into the 30XR-A along with a full complement of measurement functions. HVAC contractors and field service technicians have a choice of the manual ranging 33XR-A with temperature and capacitance or the auto-ranging, true-rms 34XR-A with temperature and backlight.**

**For electronics troubleshooting, the true-rms 37XR-A offers component and logic test. If you're an engineer, designing or troubleshooting industrial automation and control systems, check out the 38XR-A, a true-rms multimeter with bright blue backlight and an optical PC interface.**

- Autoranging (34XR-A, 37XR-A, 38XR-A only)
- Min/max and data hold
- Separate door for easy battery and fuse access
- Low battery indication
- Relative, peak, and average and data hold (37XR-A 38XR-A only)

ALL MODELS EXCEPT 30XR-A OFFER:

- Analog bar graph
- Input warning tone when test leads are in wrong jack
- Auto power-off to save battery life

**RECOMMENDED ACCESSORIES**

| | |
|---|---|
| **DL248D** | **Deluxe Test Leads Kit** (See Page 76) |
| **CT235A** | **Clamp Attachment** |
| **CT237B** | **Clamp Attachment** |
| **CT238A** | **Clamp Attachment** (See Page 77) |
| **38SW-A** | **RS232 Software/Cable (38XR-A DMM)** (See Page 79 ) |

| FEATURE | 30XR-A | 33XR-A | 34XR-A | 37XR-A | 38XR-A |
|---|---|---|---|---|---|
| DC Voltage | 200.0 mV 2.000 V, 20.00 V, 200.0 V, 500 V | 400.0 mV, 4.000 V, 40.00 V, 400.0 V, 1000 V | | 1.000 mV, 10.00 V, 100.0 V, 1000 V | |
| AC Voltage | 200.0 mV 2.000 V, 20.00 V, 200.0 V, 500 V | 400.0 mV, 4.000 V, 40.00 V, 400.0 V, 1000 V | | 1.000 mV, 10.00 V, 100.0 V, 1000 V | |
| DC Current | 200.0 µA 2.000 mA, 20.00 mA, 200.0 mA, 10 A | 400.0 µA, 4.000 mA, 40.00 mA, 300.0 mA, 10 A | | 100.0 µA, 1.000 µA, 10.00 mA, 100.0 mA, 400.0 mA, 10.00 A | |
| AC Current | 200.0 µA 2.000 mA, 20.00 mA, 200.0 mA, 10 A | 400.0 µA, 4.000 mA, 40.00 mA, 300.0 mA, 10 A | | 100.0 µA, 1.000 µA, 10.00 mA, 100.0 mA, 400.0 mA, 10.00 A | |
| Resistance | 200.0 Ω, 2.000 kΩ, 20.00 kΩ, 200.0 kΩ, 2.000 MΩ, 20.00 MΩ | 400.0 Ω, 40.00 kΩ, 4.000 MΩ | 400.0 Ω, 4.000 kΩ, 40.00 kΩ, 400.0 kΩ, 4.000 MΩ. 40.00 MΩ | 1000.0 Ω, 10.000 kΩ, 100.00 kΩ, 1000.0 kΩ, 10.00 MΩ , 40.00 MΩ | |
| Continuity | • | | | | |
| Diode | • | | | | |
| VolTect™ Non-Contact Voltage Detection | • | - | | | |
| Capacitance | - | 4.000 µF, 40.00 µF, 400.0 µF, 4000 µF | | 40.00 nF. 400.0 nF, 4.000 µF, 40.00 µF, 400.0 µF | |
| Frequency | - | 4.000 kHz, 40.00 kHz, 400.0 kHz, 1 MHz | | 100.00 Hz, 1.0000 kHz, 10.000 kHz, 100.00 kHz, 1.0000 MHz, 10.000 MHz | |
| Temperature | - | 1832 °F (1000 °C) | 1832 °F (1000 °C) | - | 2372 °F (1300 °C) |
| Duty cycle | – | – | 0.0 % ➞ 90.0 % | 0.00 % ➞ 90.0 % | |
| Logic test | – | | | • | – |
| Inductance | – | | | 40 H | – |
| dBm | – | | | -13 dBm ➞ + 50 dBm | |

**INCLUDED ACCESSORIES:** Magne-Grip™ holder with magnetic hanging strap, users manual, type-K thermocouple (33XR-A, 34XR-A, 38XR-A only), batteries (installed), test leads

CAT III 600 V · DUAL RATED CAT IV 600 V CAT III 1000 V · CE · CSA · N10140

*38XR-A only*

*For detailed specifications go to **www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**30XR-A**
MANUAL RANGING DIGITAL MULTIMETER

**33XR-A**
MANUAL RANGING DIGITAL MULTIMETER

**34XR-A**
TRMS DIGITAL MULTIMETER

**37XR-A**
TRMS DIGITAL MULTIMETER

**38XR-A**
TRMS DIGITAL MULTIMETER W/OPTICAL PC INTERFACE





## HD-110C and HD-160C Heavy-duty Multimeters

**Built for harsh environments, these unusually rugged meters offer extra features and superior protection that keep them operating reliably in heavy-duty applications.**

- Measures up to 1500 V dc and 1000 V ac and withstands transients up to 12 kV (CAT IV 1000 V) – unmatched by other digital multimeters
- IP 67 rated and sealed to prevent dirt, grime and moisture from entering the case and causing inaccurate readings or damaging shorts
- Tough, fire-retardant thermoplastic resists grease and chemical spills and other environmental hazards
- All sensitive components are shock-mounted for drop resistance to at least eight feet
- Magne-Grip™ holder with magnetic hanging strap frees both hands for work
- Automatic polarity indication
- Superior 10,000 count resolution with bar graph
- Digi-Glo™ bright backlight for superior visibility
- Auto power-off to save batteries plus low battery indication

| FEATURE | HD110C | HD160C |
|---|---|---|
| DC Voltage | 200.0 mV, 2.000 V, 20.00 V, 200.0 V, 1500 V | 1000.0 mV, 10.000 V, 100.00 V, 1500.0 V |
| AC Voltage | 200.0 mV, 2.000 V, 20.00 V, 200.0 V, 1000 V | 1000.0 mV, 10.000 V, 100.00 V, 1000.0 V |
| Current AC/DC | 200.0 µA, 2.000 mA, 20.00 mA, 200.0 mA, 2 A | 100.00 µA, 1000.0 µA, 10.000 mA, 100.00 mA, 400.0 mA, 2.000 A |
| Resistance | 200.0 Ω, 2.000 kΩ, 20.00 kΩ, 200.0 kΩ, 2.000 MΩ, 20.00 MΩ | 1000.0 Ω, 10.00 kΩ, 100.00 kΩ, 1000.0 kΩ, 10.000 MΩ, 40.00 MΩ |
| Diode | • | - |
| Continuity | • | |
| Frequency | - | 100.00 Hz, 1000.0 Hz, 10.000 kHz, 100.00 kHz, 1000.0 kHz, 10.000 M Hz |
| Capacitance | - | 40.00 nF, 400.0 nF, 4.000 µF, 40.00 µF, 400.0 µF |
| Temperature | - | -4 °F ➞ 2372 °F (-20 °C ➞ 1300°C) |
| True-rms | - | • |

**INCLUDED ACCESSORIES:** Test leads, batteries (installed), users manual, Magne-Grip™ holder with magnetic hanging strap

Electrical Safety CAT IV 1000 V · CE · CSA · N10140

**RECOMMENDED ACCESSORIES**

| | |
|---|---|
| **DL248D** | **Deluxe Test Leads Kit** (See Page 76) |
| **CT235A** | **Clamp Attachment** |
| **CT237B** | **Clamp Attachment** |
| **CT238A** | **Clamp Attachment** (See Page 77) |

*For detailed specifications go to **www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**HD110C**
HEAVY-DUTY DIGITAL MULTIMETER

**HD160C**
HEAVY-DUTY DIGITAL MULTIMETER WITH TRUE-RMS

# DMMs

## Pen Style Multimeters – Make one-handed measurements

### DM73C Multimeter with Built-in Test Probe

**Take one-handed measurements with this pen-style digital multimeter and its built in probe.**

- Continuity beeper
- LCD display plus analog bar graph
- Auto power-off

| FEATURE | DM73C |
|---|---|
| AC Voltage | 3.400 V, 34.00 V, 340.0 V, 600 V |
| DC Voltage | 3.400 V, 34.00 V, 340.0 V, 600 V |
| Resistance | 340.0 Ω, 3.400 kΩ, 34.00 kΩ, 340.0 kΩ, 3.400 MΩ, 34.00 MΩ |

**INCLUDED ACCESSORIES:** Test lead with alligator clip, 2 batteries (installed), spare tip, users manual

DUAL RATED Electrical Safety CAT III 300 V CAT II 600 V

## General Purpose Meters - The right choice for any job

### DM78C Credit Card Size Multimeter

**The DM78C is the smallest go-anywhere meter that measures voltage, continuity, diode and resistance.**

- 5 functions/16 ranges
- 3200-count display with analog bargraph
- Auto power-off saves batteries
- Data hold

**INCLUDED ACCESSORIES:** Carrying case, battery (installed), users manual

DUAL RATED Electrical Safety CAT III 300 V CAT II 600 V

### DM7C and DM9C Compact Multimeters

**A full-performance multimeter for home, auto, boat, RV, or workshop use.**

- Digital display multimeter
- 6 functions/14 ranges (DM7C only) or 7 functions/23 ranges (DM9C only)
- Industry standard test leads, safety rated
- Auto ranging (DM9C only)
- Battery test function with go/no go LED indicator

**INCLUDED ACCESSORIES:** Protective holster, test leads, battery (installed), users manual.

Electrical Safety CAT II 600 V

| FEATURE | DM7C | DM9C | DM78C |
|---|---|---|---|
| DC Volage | 2.000 V, 20.00 V, 200.0 V, 600 V | 400.0 mV, 4.000 V, 40.00 V, 400.0 V, 600 V | 340.0 mV, 3.400 V, 34.00 V, 340.0 V, 600 V |
| AC Voltage | 200.0 V, 600 V | 400.0 mV, 4.000 V, 40.00 V, 400.0 V, 600 V | 340.0 mV, 3.400 V, 34.00 V, 340.0 V, 600 V |
| DC Curent | 200 mA | 40.00 mA, 400 mA, 10.00 A | – |
| AC Current | – | 40.00 mA, 400 mA, 10.00 A | – |
| Resistance | 2000 Ω, 20.00 kΩ, 200.0 kΩ, 2MΩ | 400.0 Ω, 4.000 kΩ, 40.00 kΩ, 400.0 kΩ, 4.000 MΩ, 40.00 MΩ | 340.0 Ω, 3.400 kΩ, 34.00 kΩ, 340.0 kΩ, 3.400 MΩ, 34.00 MΩ |
| Diode | – | • | • |
| Continuity | – | • | • |
| Battery Test | 1.5 V, 9 V | – | – |

**RECOMMENDED ACCESSORIES**

| | |
|---|---|
| **DL248D** | **Deluxe Test Leads Kit** (See Page 76) |
| **CT235A** | **Clamp Attachment** |
| **CT237B** | **Clamp Attachment** |
| **CT238A** | **Clamp Attachment** (See Page 77) |

*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**DM73C**
PEN PROBE STYLE DIGITAL MULTIMETER
**DM78C**
DIGITAL MULTI-TESTER
**DM7C**
DIGITAL MULTIMETER
**DM9C**
DIGITAL MULTIMETER

# Electrical Testers

**SAFETY**
**Use Amprobe tools with confidence. Amprobe products are both tested by Amprobe and certified by UL and other appropriate regulatory groups around the world. Amprobe tools are proven performers that protect you and your equipment.**

## INSP-3 Wiring Inspector

**Just plug in this rugged tester and in seconds you can verify whether a building's wiring complies with electrical code, especially voltage drop under load. Identify issues crucial to the safety and performance of an electrical system such as splices, connections and conductor quality.**

- Save time and money by testing more efficiently: a single large display shows all relevant test data (voltage, voltage drop, hot and neutral voltage drop, voltage with load, ground impedance). No scrolling or switching screens needed
- Find faulty wiring that needs repair without removing outlet cover plates or panel covers, including:
  - Faulty splices and connections
  - Incorrect wiring
  - Undersized wiring
  - Faulty GFCIs
  - Faulty or incorrectly wired AFCIs
  - Incorrect line voltage
  - Poor ground quality
- Verify performance of electrical systems with user selectable 10,15 and 20 amp loads
- Flashing screen clearly indicates incorrect wiring or voltage drop test failure
- Test without tripping circuit breakers or blowing fuses
- Check grounding for safety and ability to support sensitive electronic equipment
- Measure fault currents

| FEATURE | INSP-3 | BEST ACCURACY |
|---|---|---|
| Load: | Constant 10, 15 or 20 AMP simulation regardless of line voltage | - |
| Operating Voltage: | 95 VAC ➡ 140 VAC | +/- 2 % + 2 digits |
| GFI Trip: | 6.0 mA nominal to trip GFI, 30 mA to trip RCD | - |
| AFCI Trip: | Up to 8, 120 AMP pulses within 1/2 second period | - |

**INCLUDED ACCESSORIES:** Power cord, 9 V alkaline battery (Installed), users manual, carrying case

CAT II 120 V

*For detailed specifications go to **www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**INSP-3**
WIRING INSPECTOR





## VPC-30 and VPC-31 Voltage Tester

**For live voltage and continuity checks, these rugged and easy-to-use testers offer a built-in shaker with the same functionality and feel as older analog solenoid testers. Yet, they provide full input protection to CAT IV 600V / CAT III 1000V.**

- Super-bright bi-color LEDs indicates safe and dangerous voltages (above 55VDC or 30VAC)
- LEDs indicate 10 levels of AC and DC Voltages:
  - Volts (AC) 24, 48, 120, 208, 240, 277, 347, 480, 600, 1000
  - Volts (DC) 6, 12, 24, 36, 48, 60, 72, 110, 220, 380
- Auto hold feature keeps LEDs illuminated to retain a reading for 10 seconds after leads are disconnected
- Solenoid tester-like shaker indicates AC voltage presence
- Auto backlit LCD digital display for precise voltage measurements (VPC-31 only)
- VolTect™ non-contact voltage detection
- Continuity buzzer and visual continuity indication (LED)
- Tests GFCI receptacles and breakers
- Automatically turns on and off for easy and quick measurements
- Automatically selects ac voltage, dc voltage or continuity
- Water- and dust-proof, IP65 design
- Standard detachable test lead for easy replacement with optional longer or specialized probe

| FEATURE | VPC-30 | VPC-31 |
|---|---|---|
| AC Voltage | 24 V, 48 V, 120 V, 208 V, 240 V, 277 V, 347 V, 480 V, 600 V, 1000 V | 24 V, 48 V, 120 V, 208 V, 240 V, 277 V, 347 V, 480 V, 600 V, 1000 V |
| DC Voltage | 6 V, 12 V, 24 V, 36 V, 48 V, 60 V, 72 V, 110 V, 220 V, 380 V | 6 V, 12 V, 24 V, 36 V, 48 V, 60 V, 72 V, 110 V, 220 V, 380 V |
| Continuity | • | • |
| Built in Shaker | - | • |
| VolTect™ Non-Contact Voltage Detection | • | • |
| LCD Display with Backlight | - | • |

**INCLUDED ACCESSORIES:** Users manual, batteries (installed), test lead

DUAL RATED Electrical Safety CAT IV 600 V CAT III 1000 V

c UL us

*For detailed specifications go to **www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**VPC-30**
VOLTAGE & CONTINUITY TESTER
**VPC-31**
VOLTAGE & CONTINUITY TESTER

## High Voltage Testers – Safely detect dangerous voltage without contact

# TIC 300 PRO AC Voltage Detector

**For utility, industrial and mine safety applications up to 122 kV, the rugged and reliable TIC 300 PRO warns against dangerous voltages without contact with the energized conductor.**

- Utility tool for checking transmission lines, power distribution equipment, down power lines, fuses, and load break connectors
- Lower voltage setting for checking voltage presence in breaker panels, breakers, power outlets and wiring
- Verifies presence of voltage from 30 V ac to 122,000 V ac (122 kV)
- Non-contact AC voltage detection
- Visual and audible voltage indication
- Self-test verifies tester works properly
- Ergonomic design with a convenient handle
- Drop-proof to six feet

| FEATURE | TIC 300 PRO |
|---|---|
| VolTect™ Non-Contact Voltage Detection | 30 V ac → 1500 V ac<br>1500 V ac → 122,000 V ac (with Hot Stick TIC 410A) |

**INCLUDED ACCESSORIES:** Deluxe carrying case, users manual, batteries (installed)

CE N10140

**RECOMMENDED ACCESSORIES**

**TIC 410A Hot Stick for TIC 300 PRO**
Safely check voltages up to 122 kV with this 48 inch Hot Stick and the TIC-300 PRO.

*For detailed specifications go to **www.Amprobe.com***

AMPROBE®
HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**TIC-300 PRO**
AC VOLTAGE DETECTOR
**TIC 410A**
HOT STICK





## Safely connect 3-phase motors to equipment – Phase Sequence Testers

# PRM-4 Phase Sequence and Motor Rotation Tester

**Phase sequence testing is crucial for many three-phase loads. Improperly connected motors can result in reverse rotation, which can damage the equipment powered by the motor. Ensure electrical equipment is correctly and safely connected with Amprobe's PRM-4.**

CAT III 600 V CE N10140

- Identifies 3-phase sequence
- Open phase check
- Motor shaft rotation indicator protected by CAT III circuitry
- 3 phase to phase input voltage, 100 V ac to 600 V ac max
- 45 to 70 Hz frequency

**INCLUDED ACCESSORIES:** Test leads with alligator clips, carrying case, users manual, 9 V battery (installed)

## Quick resistance tests prevent failures – Milliohmmeters

# MO-100 Milliohmmeter

**Spot potential failures fast with the portable, battery powered MO-100. Check for opens or shorts in motor windings, generators and transformers. Test heating elements and wire-to-wire resistance in critical electrical connections.**

*9.8" (L) x 7.5" (W) x 4.3" (D)*
*(250 mm x 190 mm x 110 mm)*

- Accurate four terminal measurement down to 100 µΩ without test leads resistance compensation
- Three test currents with over-temperature protection for measurement precision
- Protection against inadvertent connection to overvoltage
- Potential lead resistance, current lead resistance checks
- Indicates measurement errors due to temperature or connection problems
- Auto-hold and auto-off features
- Lightweight, robust and compact
- "O-Ring" sealed enclosure

| FEATURE | MO-100 |
|---|---|
| Measuring Ranges | 0 → 200.0 mΩ in steps of 100 µΩ<br>0 → 2000 mΩ in steps of 1 mΩ<br>0 → 20.00 Ω in steps of 10 mΩ<br>0 → 200.0 Ω in steps of 100 mΩ,<br>0 → 2000 Ω in steps of 1 Ω |
| Test Current | 1 mA (2000 Ω range)<br>10 mA (20 Ω / 200 Ω ranges)<br>100 mA (200 mΩ / 2000 mΩ ranges) |

**INCLUDED ACCESSORIES:** Users manual, test leads, batteries (installed)

CE N10140

*For detailed specifications go to **www.Amprobe.com***

AMPROBE®
HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**PRM-4**
PHASE SEQUENCE AND MOTOR ROTATION TESTER
**MO-100**
MILLIOHM METER

*VP-440* *VP-600SB*

## VP-440 & VP-600SB Non-Contact Volt Probes®

**Designed for safe, non-contact voltage detection, these voltage probes don't require much budget or demand much space. They fit conveniently in a shirt pocket, tool belt, or pouch.**

- Safely check for ac voltages without disconnecting the electrical loads
- Test cables, circuit breakers, wall sockets, junction boxes, and fuses
- Completely insulated, with no exposed metal or conductive parts
- No current flow is needed for correct operation

| FEATURES | VP-440 | VP-600SB |
|---|---|---|
| AC Voltage Detection | 100 V ➞ 1000 V | 100 V ➞ 600 V |
| Indicator | Lights | Lights, Beeps and Vibrates |
| Safety Rating | CAT III 1000 V | CAT III 600 V |

**INCLUDED ACCESSORIES:** Users manual, batteries (installed)

*VP-440* *VP-600SB*

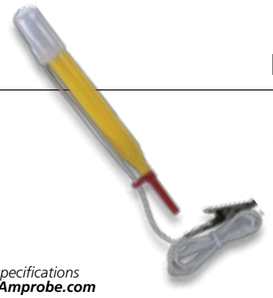
## HV231-10A High Voltage Probe

**When you need to safely measure high AC or DC voltage, reach for this specialty handheld probe.**

- Extended voltage measurement to 40 kV
- Use with standard multimeters with 10 MΩ input impedance

| FEATURE | HV231-10A |
|---|---|
| Input Resistance | 1000 MΩ |
| Division Ratio | 1000:1 |
| Maximum Working Voltage | 40 kV DC or AC peak<br>28 kV AC RMS |

**INCLUDED ACCESSORIES:** Users manual



## PY-11 Continuity Tester

- Bulb lights when circuit is completed
- For use with unenergized circuits

*For detailed specifications go to **www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**VP-440**
NON-CONTACT VOLT PROBE
**VP-600SB**
NON-CONTACT VOLT PROBE
WITH SHAKER AND BUZZER
**HV231-10A**
HIGH VOLTAGE PROBE





## ST101A / ST102A Socket Testers

**Quickly test sockets and confirm GFCI breakers are properly wired for protection with the ST102A.**

- Confirm proper wiring and operation of AC socket
- Easy-to-read lights indicate common wiring problems
- The trip test to confirm that GFCI protection is working properly (ST102A only)
- For use on 110-125 V AC

| FEATURES | ST101A | ST102A |
|---|---|---|
| AC Voltage | 110 V ➞ 125 V | 110 V ➞ 125 V |
| GFCI | - | • |

**INCLUDED ACCESSORIES:** Users manual

## PY-1A Voltage Tester

**For unenergized circuits, connect the PY-1A. The bulb lights when the circuit test is completed.**

| FEATURE | PY-1A |
|---|---|
| AC Voltage | 120 V, 240 V, 277 V, 480 V |
| DC Voltage | 160 V, 330 V, 380 V, 480 V |

**INCLUDED ACCESSORIES:** Users manual

## LAN-1 LAN Tester

**With quick, go/no-go tests, you can find opens, shorts and miswired cable installations. You can either step through the test cable one at a time, or let the unit automatically pulse through the pin-outs and display the results.**

- Remote termination module tests installed cable on wall plate or patch panels
- Perform loopback test or remote test
- Buzzer sounds warning for error condition in cable
- Two sets of LED lights indicate source and test
- Maximum line length: 300 meters

| FEATURE | LAN-1 |
|---|---|
| Cable Types Tested | 10/100 base-T; 10 base-2; RJ45; AT&T 258A;<br>EIA / TIA 568A/568B; Token Ring |
| Continuity Maximum length | > 300 meters |
| Connector Types | RJ45, BNC |

**INCLUDED ACCESSORIES:** Users manual, batteries (installed), remote terminator, RJ45 to female BNC cable, RJ45 to male BNC cable, RJ45 to RJ45 cable, Female BNC to Female BNC cable

*For detailed specifications go to **www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**ST101A**
SOCKET TESTERS
**ST102A**
SOCKET TESTER WITH GFCI
**PY-1A**
VOLTAGE TESTER
**PY-11**
CONTINUITY TESTER
**LAN-1**
LAN CABLE TESTER

# Safety Reference Guide

## International safety standards

Test equipment must be designed to protect people who work in the high-voltage, high-current environments. In order to prevent injury, the International Electrotechnical Commission (IEC) develops international general standards for safety of electrical equipment for measurement, control and laboratory use. The most current standard 61010 specifies overvoltage categories for electrical distribution systems. The category rating increases based on the closeness to the power source and a higher level of user protection that is required from test equipment.

## Proposed Energy Regions*

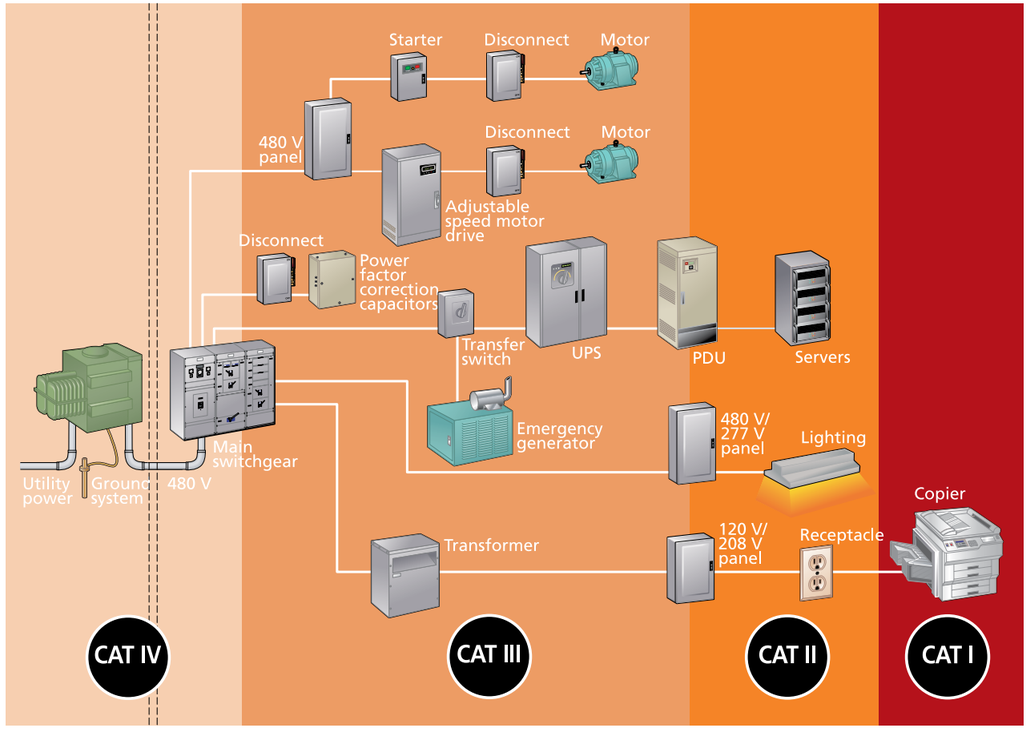
**CAT I**
Electronics, signal level single-phase receptacle loads

**CAT II**
Appliances, portable tools

**CAT III**
Three-phase distribution, large building lighting systems, distribution panel devices

**CAT IV**
Three-phase at utility connection, electricity meters, outside and service entrance

** Category ratings per IEC1010-1. Category boundaries may not be exact.*



AMPROBE®
HARD AT WORK SINCE 1948.

# Wire Tracers and Underground Locators

**TECHNOLOGY**
When you want to be absolutely sure you're digging in the right place, depend on the technology leader. No other systems even come close to the speed, reliability and accuracy of Amprobe Underground Cable and Pipe Locators. They were specifically designed for your electrical and utility applications. Amprobe invented the Wire Tracer technology and continues to lead the industry today.

## AT-5000 Professional Underground Cable and Pipe Locator

**Buried utilities pose a hazard to excavation crews and a major challenge to electricians who need to trace and troubleshoot lines. Errors in digging can cause cable or pipe damage and result in personal injury and costly repairs. Faster and more accurate than anything else on the market, the AT-5000's superior design and powerful software sets the standard for locating and pinpointing faults in underground systems. Distance-sensitive left / right indication guides the user to the exact location of the buried utilities, saving time and effort. Signal Select and Distortion Alert keeps the user on the target line by visually indicating a clean traced line, versus the "ghost" and 'return' path of false signals coming from the neighboring lines.**

- Three testing modes for best accuracy:
  - Passive power mode (50, 60, 100 and 120 Hz) – traces energized lines conducting current
  - Passive radio mode (RF) – using surrounding radio waves to trace underground object
  - Active mode - T-5000 signal generator with broad frequency selection between 491 Hz and 166 kHz with induction mode or directly connected to the cable with test leads or optional clamp
  - Active mode depth measurement up to 20' (6 m)
- Ergonomically designed, lightweight handheld receiver is designed for comfort and balanced for all day use
- Receiver's bright color ¼ VGA graphical display and audible signals provide clear readings
- Powerful digital signal processing in both receiver and transmitter provides outstanding performance in tracing when compared to analog devices
- Automatic or manual gain mode for quick and easy tracing of the line or precise pinpointing of the fault
- Receiver Bluetooth® wireless communication for downloading relevant images and archiving
- Rugged durable construction, weatherproof and drop-resistant to 3 feet

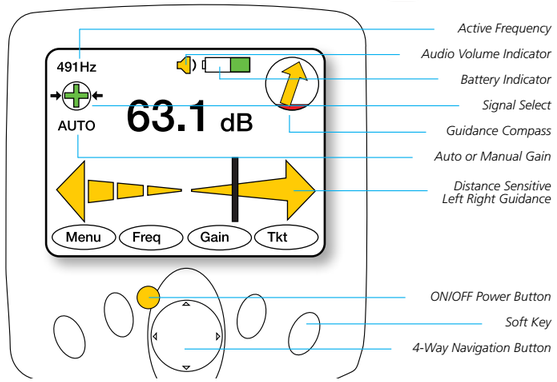
**INCLUDED ACCESSORIES:** Receiver (R-5000), transmitter (T-5000), connection cable, ground stake, ground cable, carrying case, users manual, batteries (installed)

CAT III 600 V · CE · N10140

| RECOMMENDED ACCESSORIES | |
|---|---|
| A-5000 | A-Frame Attachment |
| SC-5000 | Signal Clamp Attachment |
| M-5000 | Pipe Transmitter |
| BT-5000 | Rechargeable Batteries for Transmitter |
| BR-5000 | Rechargeable Batteries for Reciever |
| EPS-5000 | Charging Kit for Transmitter and Receiver |

*A-5000 A-Frame*

*For detailed specifications go to* ***www.Amprobe.com***




*Bright VGA display offers intuitive, easily read graphics that are visible in all lighting conditions. Audible signals ensure clear unambiguous readings.*

*Active Frequency*
*Audio Volume Indicator*
*Battery Indicator*
*Signal Select*
*Guidance Compass*
*Auto or Manual Gain*
*Distance Sensitive Left Right Guidance*
*ON/OFF Power Button*
*Soft Key*
*4-Way Navigation Button*

## A-5000 A-Frame Ground Fault Locator

**Non-destructively pinpoint cable ground faults in power and telecom cable with this optional A-Frame attachment for the AT-5000.**

## AT-5005 Underground Cable/Pipe Locator System

**This kit offers a complete system solution for underground cable and pipe location work including the AT-5000 receiver and transmitter, the A-5000 A-frame ground fault locator, plus all ground stakes, cables and connectors.**

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**AT-5000**
PROFESSIONAL UNDERGROUND CABLE / PIPE LOCATOR SYSTEM

**A-5000**
A-FRAME GROUND FAULT LOCATOR

**AT-5005**
PROFESSIONAL UNDERGROUND CABLE / PIPE LOCATOR SYSTEM





## AT-3500 Underground Cable/Pipe Locator System

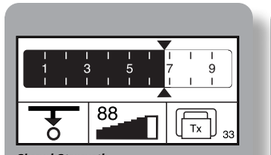
**Keep productivity high and operational costs low, with the AT-3500. This rugged, economical solution helps you locate underground energized and de-energized wires, cables and pipes. Great for parking lot and airport lighting applications, it precisely pinpoints buried services, with exceptionally fast sound and meter response.**

- Precise pinpointing of buried services
- Three testing modes for best accuracy
  - Passive Power (50 Hz / 60 Hz)
  - Passive Radio (RF)
  - Active T-3500 signal generator with induction mode directly connected to the cable with test leads or optional clamp
- Proven 33 kHz frequency for most locating applications
- Avoid lines at utility construction sites with highly sensitive power and radio modes
- Take depth measurements up to 16' (4.9m) with the press of a button0
- Backlight multiple-segment bar-graph digital display plus audible indicators show and tell
- Semi-automatic gain control – fast signal location and control

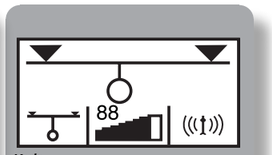
**INCLUDED ACCESSORIES:** Receiver, transmitter, connection cables, ground stake, carrying case, users manual, batteries (installed)

CAT III 600 V · CE · N10140

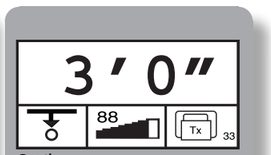
| FEATURE | AT-5000 | AT-3500 |
|---|---|---|
| Depth Measurement | 20 ft | 16 ft |
| Passive Tracing Frequencies | 50 Hz, 60 Hz, 100 Hz and 120 Hz | 50 Hz / 60 Hz |
| Transmitter Frequency | Selectable: 491 to 166 kHz | Single, non-adjustable |
| Receiver Active Frequencies (Hz) | 491, 982, 8.44k, 9.82k, 35k, 82k, 83k (North America)<br>491, 512, 577, 640, 982, 8k, 8.44k, 9.82k, 35k, 65.5k, 82k, 83k (Worldwide) | 32.768 kHz |
| Receiver Passive Frequencies (Hz) | 50, 60, 100, 120, RF (14k-21k)<br>Extended and special frequency sets available | Range 1: radio 15 kHz to 23 kHz<br>Range 2: power network 50 Hz / 60 Hz; optionally 100 Hz (can be adjusted by Amprobe service personnel) |
| Receiver Depth Display Accuracy | 0-10 ft: +/- (5 %+2")<br>under ideal field conditions<br>10-20 ft: +/- 10%<br>under ideal field conditions | Range 1: radio +/- 20 %<br>Range 2: power network +/- 20 %<br>Range 3: transmitter +/- 5 % (>5m (6-FT)),<br>+/- 20 % (<5m (15-FT)) |
| Receiver Depth Range | Maximum 20 ft (600 cm) | Maximum 16 ft (488 cm) |
| Receiver Antenna (Distance Sensitive Left/ Right Guidance) | • | - |
| Line ID (Signal Select, Guidance Compass, Distortion Alert) | • | - |




*Signal Strength*




*Yada*




*Depth*

| RECOMMENDED ACCESSORIES | |
|---|---|
| SC-3500 | Signal Clamp |
| MLS55-3 | Pipe Transmitter |

*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**AT-3500**
UNDERGROUND CABLE / PIPE LOCATOR SYSTEM

## AT-4000 Series Advanced Wire Tracer

**Amprobe invented wire tracer technology decades ago and continues to set the standard today. The most advanced of all wire tracers, the AT-4000 Series combines the technology, features and functions to make wire tracing fast and precise.**

- One universal transmitter automatically switches to trace energized and non-energized (open, broken) wires
- Receiver is not position-sensitive —get accurate readings without rotating
- Locates breakers, neutrals, and ground lines
- Locates and traces wires in walls, floors, conduit, and computer cables
- Pinpoints shorts, ground faults and broken wires
- Performs tests without having to interrupt power
- Does not interfere with sensitive electronic equipment
- Precise sensitivity adjustment
- Battery booster strengthens signal for open tracing
- Clamp-on attachment injects signal for non-contact operation

| SPECS | RANGE |
|---|---|
| Transmitter operating voltage | 9 V - 600 V AC/DC |
| Operating frequency | 32.786 kHz |
| Receiver short mode range and open mode range | 20' in air from the traced wire under test conditions |

| FEATURES | AT-4001CON | AT-4003CON | AT-4004CON | AT-4005CON |
|---|---|---|---|---|
| Traces energized wires without power interruption. Locates breakers without power interruption. | • | • | • | • |
| Traces unenergized wires (wire continuity and wire grounded at the end). Pinpoints shorts and ground faults. | • | • | • | • |
| Traces unenergized open wires (broken or disconnected wire). Pinpoints place where wire is broken. | • | • | • | • |
| Supplied with clamp-on attachment to inject signal without making contact with bare wire. | - | - | • | • |
| Supplied with Battery Booster to strengthen signal for open tracing. | - | - | - | • |

| KIT CONTAINS: | AT-4001CON | AT-4003CON | AT-4004CON | AT-4005CON |
|---|---|---|---|---|
| Carrying Case | Soft SV-1000 | Hard CC-AT-4000 | Hard CC-AT-4000 | Hard CC-AT-4000 |
| Receiver R-4000 CON | • | • | • | • |
| Transmitter T-4000 | • | • | • | • |
| 110V Pigtail - Banana Plug Cord Set C2901 | • | • | • | • |
| Alligator Clip – Banana Plug Cord Set C2902 | • | • | • | • |
| Grounding Test Lead 25-ft. MTL-G | • | • | • | • |
| Alligator Clip for Ground Lead VRC-320 | • | • | • | • |
| Clamp-on Transmitter Accessory A2202 | - | - | • | • |
| Rechargeable Battery Pack B2024 | - | - | - | • |
| Battery Pack Recharger B2025 | - | - | - | • |
| Users Manual | • | • | • | • |

CAT III 600 V

*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE®
HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**AT-4000CON**
ADVANCED WIRE TRACER SERIES
**AT-4001CON**
ADVANCED WIRE TRACER WITH SOFT CASE
**AT-4003CON**
ADVANCED WIRE TRACER WITH HARD CASE
**AT-4004CON**
ADVANCED WIRE TRACER WITH HARD CASE AND CLAMP-ON ATTACHMENT
**AT-4005CON**
ADVANCED WIRE TRACER WITH HARD CASE, CLAMP-ON ATTACHMENT, BATTERY BOOSTER AND CHARGER





## AT-2000 Series Wire Tracers

**Without interrupting power, you can trace live wires buried or hidden behind walls up to 13 feet deep.**

- Traces unenergized and open (broken) wires
- Locates breakers, neutral and ground lines
- Locates and traces wires in walls, floors, conduit, computer cables, etc.
- Pinpoints shorts, ground faults and broken wires
- Does not interfere with sensitive electronic equipment

| FEATURES | AT-2004 | AT-2005 |
|---|---|---|
| Traces energized wires without power interruption. Locates breakers without power interruption. | • | • |
| Traces unenergized wires (wire continuity and wire grounded at the end). Pinpoints shorts & ground faults. | • | • |
| Traces unenergized open wires (broken or disconnected wire). Pinpoints place where wire is broken. | • | • |
| Supplied with clamp-on attachment to inject signal without making a contact with bare wire. | • | • |
| Supplied with battery. Booster to strengthen signal for open tracing. | - | • |

| KIT CONTAINS: | AT-2004 | AT-2005 |
|---|---|---|
| R-2000 Receiver | • | • |
| S-2600 Transmitter 9-600 V | • | • |
| T-2200 Transmitter for open tracing | • | • |
| Clamp-on Transmitter Accessory A2201CE | • | • |
| B2024 Rechargeable Battery Pack | - | • |
| B2025 Battery Pack Recharger | - | • |
| C2901 Cordset 110 Volt Plug to Banana Plugs | • | • |
| C2902 Cordset Alligator Clips to Banana Plugs | • | • |
| Users Manual | • | • |

CAT III 600 V

## AT-1000 Wire Tracer

**For basic applications where accuracy and routine troubleshooting are important, choose Amprobe's first-tier circuit tracer.**

- Trace energized lines up to 300 V ac or V dc
- Trace unenergized and open conductors
- Identifies breakers and fuses without powering down
- Locates shorts
- Identifies wires in a bundle
- Identifies control, alarm and telephone system wiring
- Traces coaxial cable shield
- Receiver range 1 to 3 feet from a cable being traced

| FEATURE | AT-1000 |
|---|---|
| Trace energized lines up to 300 V ac or V dc | 100 V → 125 V ac (X1000 Transmitter) |
| Range 1-3' from a cable being traced | R1000 Receiver |

**INCLUDED ACCESSORIES:** Users manual, batteries (installed), transmitter, receiver, connection cables, carrying case

*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE®
HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**AT-2004**
ADVANCED WIRE TRACER
**AT-2005**
ADVANCED WIRE TRACER
**AT-1000**
ADVANCED TRACER

# Wire Tracers

## Current Tracers – Heavy-duty for industrial applications

### CT-100 and CT-326B Current Tracers

**For tough industrial applications, we recommend these heavy-duty current instruments to trace live wires buried underground or hidden behind walls up to four feet deep.**

- Performs tests without having to interrupt power
- Locates breakers, neutral and ground lines
- Locates and traces wires in walls, floors, conduit, computer cables, etc.
- Pinpoints shorts and ground faults
- Does not interfere with sensitive electronic equipment

| FEATURES | CT-100 | CT-326B |
|---|---|---|
| Traces energized wires without power interruption. Locates breakers without power interruption. | 9 V ➡ 300 V AC/DC | 9 V ➡ 300 V AC/DC<br>300 ➡ 600 V AC |
| Traces unenergized wires (wire continuity and wire grounded at the end). Pinpoints shorts and ground faults. | T-100 Transmitter & 9 V batteries | Transmitter & 9 V batteries |
| Digital filter to assure cutting edge accuracy in noisy industrial environments. | - | • |
| Sensitivity Settings | 3 | 12 |

**INCLUDED ACCESSORIES:** Users manual, transmitter, receiver, connection cables, carrying case

Electrical Safety CAT III 600 V

## Breaker Tracers – Fast, dependable, automatic

### BT-120 and BT-250 Breaker Tracers

**When you need to identify circuit breakers quickly and efficiently, count on these durable and dependable tracers.**

- Works on all electrical systems from 90 to 280 V ac
- Meets the latest code requirement
- Automatic sensitivity adjustment
- Extremely accurate reading always finds the right breaker

| FEATURES | BT-120 | BT-250 |
|---|---|---|
| Voltage Range | 90 V ➡ 120 V | 90 V ➡ 280 V |
| Frequency Range | 50 Hz➡ 60 Hz | 40 Hz ➡ 70 Hz |

**INCLUDED ACCESSORIES:** Users manual, transmitter, receiver, carrying case (BT-250 only), connection cable (BT-250 only), light fixture adapter (BT-250 only), batteries (installed)

Electrical Safety CAT II 120 V *BT-120*

Electrical Safety CAT II 280 V *BT-250*

c UL us

### ECB50A Breaker Tracer

**With one tool, you can perform three types of tests: Identify the circuit breaker to an electrical socket, trace AC cables in walls up to 40 cm, or sort wires in a bundle**

- Coded transmission allows easy separation of transmitter signal
- Audible and visual indicators
- Low battery indicator

Electrical Safety CAT II 300 V CE c UL us N10140

**INCLUDED ACCESSORIES:** Users manual, transmitter, receiver, batteries (installed)

*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE®
HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**CT-100**
WIRE TRACER

**CT-326B**
CURRENT TRACER

**ECB50A**
CIRCUIT BREAKER FINDER AND AC CABLE TRACER

**BT-120**
BREAKER TRACER

**BT-250**
BREAKER TRACER

AMPROBE®
HARD AT WORK SINCE 1948.

# Insulation / Ground / Power Quality

**EFFICIENCY**
**Reduce downtime, predict equipment life and cut energy costs with Amprobe tools. The Amprobe insulation resistance testers support your preventative maintenance programs while the Amprobe power quality tools help you conserve energy and keep your equipment operating at peak performance. Use the Amprobe ground testers to not only operate efficiently, but also safely.**

## AMB-45 Digital Insulation Tester

**Test insulation of wires, cables, transformers and electrical motors quickly and easily with this rugged tester.**

- Three selectable test voltages
- Programmable timer to perform Dielectric Absorption Ratio (DAR) test
- Sensitive ohmmeter for checking resistance of motor windings
- Built-in voltmeter
- Internal memory of 99 data points to store measurements for future reference
- Download data to PC with included PC software
- Rugged durable design

**INCLUDED ACCESSORIES:** Test leads, users manual, batteries (installed), carrying case, software & download cable

CAT III 600 V · CE · N10140

## Telaris ISO-PRO Insulation Tester

**A full suite of features translates into robust functionality for testing electrical systems, conductors, and machines. Test insulation resistance of electrical circuit main lines to earth ground and main neutral to earth ground.**

- Pre-set the limits of the insulation measurement range
- Test lead compensation for precise zero adjustment in the event of low-ohm measurement
- Bar graph
- Backlight makes the screen readable even in poor lighting conditions
- Timer measurement for fast testing of several conductors or leads
- Infrared interface for recording the measurement results on a PC
- Data memory for up to 500 measurement values
- Energy management

**INCLUDED ACCESSORIES:** Test leads, users manual, batteries (installed), carrying case

CAT III 600 V · CE · N10140

## AMB-25 Digital Insulation Resistance Tester

**Quality tools don't have to be expensive. These affordable, rugged megohmmeters are fast and easy to use, and offer the features you need for most insulation test applications including wires, cables, transformers and motors.**

- Selectable test voltages up to 1000 V
- Button lock for Dielectric Absorption Ratio (DAR) test
- Sensitive ohmmeter for checking resistance of motor windings
- Internal memory stores nine readings

**INCLUDED ACCESSORIES:** Test leads, users manual, batteries (installed)

CAT III 600 V · CE · N10140

| FEATURES | AMB-45 | AMB-25 | ISO-PRO |
|---|---|---|---|
| Insulation resistance (100 V dc) | - | | 1.999 MΩ |
| Insulation resistance (250 V dc) | 4.000 MΩ, 40.00 MΩ, 400.0 MΩ, 4000 MΩ | 40.00 MΩ, 400.0 MΩ | 19.99 MΩ |
| Insulation resistance (500 V dc) | 4.000 MΩ, 40.00 MΩ, 400.0 MΩ, 4000 MΩ | 400.0 MΩ, 1000.0 MΩ | 199.9 MΩ |
| Insulation resistance (1000 V dc) | 4.000 MΩ, 40.00 MΩ, 400.0 MΩ, 4000 MΩ | 400.0 MΩ, 2000.0 MΩ | 1999 MΩ |
| Resistance (9 V) | 400.0 MΩ, 4000 Ω | 999.9 Ω | 19.99 MΩ |
| Voltage ac/dc | 600.0 V | - | 500 V |

*For detailed specifications go to **www.Amprobe.com***

AMPROBE®
HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**AMB-25**
DIGITAL INSULATION RESISTANCE TESTER
**ISO-PRO**
TELARIS ISO-PRO INSULATION TESTER
**AMB-50**
DIGITAL INSULATION RESISTANCE TESTER





## AMB-50, AMB-55 and AMB-110 Industrial High-Voltage Insulation Testers

**Professional insulation diagnostics, automated calculations and step voltage testing satisfy the most demanding customers and applications. You can accurately test cables, transformers, motors, surge arrestors and generators in noisy environments such as high voltage switchyards. Built-in noise rejection filters and shielded test leads provide high EMI immunity.**

- Selectable testing voltages: use one testing instrument for low and high voltage systems
  - AMB-50 from 500 V to 5000 V with 25 V increments
  - AMB-55 from 250 V to 5000 V with 25 V increments
  - AMB-110 from 500 V to 10,000 V with 25 V increments
- R(t) graph plots resistance in real time to graphically illustrate a material's response to the applied voltage
- Programmable Timer (1 second to 30 minutes)
- Automatic discharge of test object after measurement is complete
- Measure and display all parameters simultaneously on large LCD
- Fast charging and testing
- Dual power source: receptacle or rechargeable batteries
- Built-in memory stores 1000 measurements with time and date
- Windows-compatible PC Software and either RS232 or USB communications ports for recording and managing test data on PC

| FEATURE | AMB-50 | AMB-55 | AMB-110 |
|---|---|---|---|
| Insulation Resistance | 0.5 MΩ → 20 GΩ, 2 MΩ → 40 GΩ, 5 MΩ → 100 MΩ, 100 MΩ → 1000 GΩ | 0 Ω → 999 kΩ, 1.00 Ω → 9.99 MΩ, 10.0 MΩ → 100.0 MΩ, 1.00 Ω- 9.99 GΩ | |
| Test Voltage and Step Voltage Diaplay Range | 0 V → 5000 V | 0 V → 5500 V | 0 V → 9999 V |
| Current Display Range | 0 mA → 1.2 mA | 0.00 nA → 9.99 nA, 10.0 nA → 99.9 nA, 100 nA → 999 nA, 1.00 µA → 9.99 µA, 10.0 µA → 99.9 µA, 100 µA → 999 µA, 1.00 mA → 5.50 mA | |
| Dielectric Absorption Ratio (DAR) | 0 → 9.99 | 0.01 → 100.0 | |
| Polarization Index (PI) | 0 → 9.99 | 0 → 100.0 | |
| Dielectric Discharge Test (DD) | 0 → 9.99 | 0 → 100.0 | |
| Leakage Current Display Range | 1 mA → 1.2 mA | 0 mA → 5.50 mA | |
| External Voltage Measurement | 30 V → 600 V | 0 V → 600 V | |
| Capacitance Measurement | - | 0 nF → 99.9 nF, 100 nF → 999 nF, 1 µF → 50.0 µF | |
| Download PC Interface | • | • | |
| Memory Size | 18 Measurements | 128 kB | |

**INCLUDED ACCESSORIES:** Test lead, large jaw alligator clips, batteries, users manual, carrying case, software, RS-232 cable (AMB-55, AMB-110), USB cable

CAT III 600 V (*AMB-50*) · CAT IV 600 V (*AMB-55 AMB-110*) · CE · N10140

**RECOMMENDED ACCESSORIES**

**AMB-50-KIT1** Test leads (AMB-50)
**AMB-KIT1** Test leads (AMB-55, AMB-110)

NEW

*AMB-50*

*AMB-55*

NEW

*AMB-110*

*For detailed specifications go to **www.Amprobe.com***

AMPROBE®
HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**AMB-50**
HIGH VOLTAGE DIGITAL MEGOHM-METERS – INSULATION RESISTANCE TESTERS
**AMB-55**
HIGH VOLTAGE DIGITAL MEGOHM-METERS – INSULATION RESISTANCE TESTERS
**AMB-110**
HIGH VOLTAGE DIGITAL MEGOHM-METERS – INSULATION RESISTANCE TESTERS

## AMB-2 and AMB-3 Insulation Testers

**Cut unscheduled downtime and reduce shock hazards. Quickly check the insulation resistance value of electric equipment and lines with this small, easy to-operate tester.**

- Sensitive ohmmeter for checking resistance of motor windings
- Built in voltmeter
- Battery OK test
- Mirror scale
- Automatic discharge of equipment capacitance for safe removal of test leads

*AMB-2*

*AMB-3*

| FEATURE | AMB-2 | AMB-3 |
|---|---|---|
| Insulation Resistance with 250 VDC Test Voltage | 0 Ω → 50 MΩ | - |
| Insulation Resistance with 500 VDC Test Voltage | 0 Ω → 100 MΩ | 0 Ω → 1000 MΩ |
| Voltmeter | 0 V → 600 V ac/dc | 0 → 600 V ac |
| Low Resistance (300 mVDC) | 0 Ω → 100 Ω | - |

**INCLUDED ACCESSORIES:** Users manual, batteries (installed), carrying case, test leads

## AMC-2, AMC-3 and AMC-4 Hand-Cranked Insulation Testers

**Test insulation of wires, cables, transformers and electrical motors without batteries or external power. With these hand-cranked tools, you're always ready to test.**

- Sensitive ohmmeter for checking resistance of motor windings
- Guard terminal eliminates surface leakage that may influence readings
- Light and smooth operating crank
- Rugged cross coil movement
- High impact housing
- Spring-loaded terminal connection

| FEATURE | AMC-2 | AMC-3 | AMC-4 |
|---|---|---|---|
| Insulation Resistance with 500 VDC Test Voltage | 0 Ω → 100 Ω | - | 0 Ω → 100 MΩ |
| Insulation Resistance with 1000 VDC Test Voltage | - | 0 Ω → 500 M Ω | 0 Ω → 500 MΩ |
| Low Resistance (300 mVDC) | - | 0 Ω → 200 Ω | - |

**INCLUDED ACCESSORIES:** Users manual, carrying case, test leads

*For detailed specifications go to **www.Amprobe.com***

AMPROBE®
HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**AMB-2**
ANALOG INSULATION TESTER
**AMB-3**
ANALOG INSULATION TESTER
**AMC-2**
HAND CRANKED INSULATION TESTERS
**AMC-3**
HAND CRANKED INSULATION TESTERS
**AMC-4**
HAND CRANKED INSULATION TESTERS





## GP-2 GEOTEST Ground Resistance and Resistivity Tester

**For installation and troubleshooting, this instrument provides accurate and reliable measurements of ground resistance and soil resitivity to help you reduce power quality problems.**

- Measures earth ground resistance with 3-point (fall of potential) or 2-point tests
- Calculates resistivity with 4-point test
- Automatic voltage measurement prevents false measurements
- Automatically applies three testing frequencies for the most accurate readings
- Auto ranging
- Store up to 999 measurements
- Download data to a PC to create custom reports

**INCLUDED ACCESSORIES:** Users manual, batteries (installed), connection cables, 4 ground stakes, PC software and USB cable, carrying case

CAT III 600 V · CE · N10140

## TELARIS EARTH-TEST Earth Resistance Tester

**This lightweight and powerful instrument is a handy way to determine earth resistance.**

- 2-, 3-, and 4-wire measurements
- Complies with the Verner method for specific earth resistance measurements
- Displays and monitors both auxiliary earth and probe resistances
- Displays the actual test current to enhance and control measurement quality
- Measurement current approx 10 mA
- Probe and auxiliary ground resistance up to 50 kΩ
- Two measurement frequencies prevent stray voltage interference
- Automatically optimized measurement frequency selection
- Pre-selection of maximum admissible contact voltage: VL 25 or 50 V

**INCLUDED ACCESSORIES:** Users manual, batteries (installed), connection cables, 4 ground stakes, carrying case

CAT III 600 V · CE · N10140

## DGC-1000A Clamp-on Ground Resistance Tester

**User-friendly and accurate, the DGC-1000A helps you work safely without test leads or auxiliary electrodes. The on-board memory and data logging features improve efficiency.**

- Accurate ground resistance measurement from 0.025 to 1500 Ohms
- True-rms current measurement including leakage current
- Accurate readings in less than 10 seconds regardless of power quality
- Continuity beep if the resistance is below 40.00 Ohms
- Data logging capability - 116 records
- Individual data point recording
- User selectable high and low ohm audible alarms
- Auto power off (can be disabled)
- Low battery indicator

**INCLUDED ACCESSORIES:** Carrying case, users manual, resistance calibration plate, batteries (installed)

CAT III 600 V · CE · N10140

| FEATURE | GP-2 | DGC-1000A | EARTH-TEST |
|---|---|---|---|
| Ground Resistance | 1999 Ω | 1500 Ω | 19.99 Ω, 199.9 Ω, 1999 Ω |
| Ground Resistivity | 199.9 kΩm | - | - |
| AC Currrent | - | 10.00 A | - |
| AC Voltage | 0 → 500.0 V | - | - |

*For detailed specifications go to **www.Amprobe.com***

AMPROBE®
HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**DGC-1000A**
CLAMP-ON GROUND RESISTANCE TESTER
**EARTH-TEST**
TELARIS EARTH-TEST
**GP-2**
GROUND RESISTANCE & RESISTIVITY TESTER

## DM-III Multitest and DM-III Multitest F Power Quality Recorders

**Cut energy costs and improve operating efficiency with Amprobe's full-featured three-phase Power Quality Recorders. They offer the essential functions and capabilities for today's demanding electrical environments.**

- Measures and records a broad spectrum of power quality parameters with true-rms accuracy
- Compatible with a wide range of current transducers
- Works with single- and three-phase systems (Y and Delta)
- Detects and records voltage anomalies, sags and surges
- Test insulation of wires, cables, transformers and electrical motors
- Programmable timer to perform the Dielectric Absorption Ratio Test
- Selectable polarization of ohmmeter for checking grounding continuity
- Built-in scope displays waveforms
- Manual and programmable recording start
- Ensure uninterrupted data recording with password protection
- Records up to 64 parameters (single- or three-phase) simultaneously
- Special data compression system and user selectable rates allow recording from several hours to several years
- Download capabilities, with Windows compatible PC software
- Line or battery powered
- Automatic voltmeter protects against misuse on hazardous energized systems

**RECOMMENDED ACCESSORIES**

| | |
|---|---|
| **CC-DM-III** | **Hard Carrying Case** |
| **DM-CT-100** | **100 Amp Current Transducers** |
| **DM-CT-HTA** | **1000 Amp Current Transducers** (included with DM III Multi-test) |
| **AM-FLEX33** | **3000 Amp Flexible Current Transducer** (included DM III Multi-test F) |
| **C2006** | **PC Cable and Software Interface** |

| FEATURE | DM-III MULTITEST | DM-III MULTITEST F |
|---|---|---|
| AC Voltage | 600 V | |
| AC Currrent | 1000 A | 3000 A |
| Optional CT's | 1000 A, 3000 A | 100 A |
| Harmonics | THD, DC to 49th | |
| Power | W, VAR, VA | |
| Energy | Wh, WARh, VAh | |
| Voltage Anomalies | Sag / Surge | |
| Power Factor | 0.00 +/- 1.00 | |
| Frequency | 50 / 60 Hz | |
| Phase Sequence | 1-2-3 | |
| INSULATION TESTER | 50 V, 100 V, 250 V, 500 V, 1000 V | |
| GROUND RESISTANCE | Reisitance & Reistivity | |

**INCLUDED ACCESSORIES:** External power supply, users manual, test leads, ground resistance test leads with 4 ground stakes, carrying case, PC software and USB cable, 3 current transducers (1000 amps for Multitest and 3000 amps for Multitest F)

CAT III 600 V · CE · N10140

*For detailed specifications go to **www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**DM-III Multitest**
POWER QUALITY RECORDERS
**DM-III Multitest F**
POWER QUALITY RECORDER





## DM-II® PLUS Power Quality Analyzer

**This all-in-one true-rms, power quality device offers you everything you need to maintain, diagnose and troubleshoot electrical systems. It not only measures and records a broad spectrum of power quality parameters, it's also easy to use. On-board memory makes it a perfect tool for preventative maintenance.**

- 5 built-in selectable languages: English, French, Italian, German and Spanish
- User-selectable rates allow recording from one hour to several months
- Works with single- and three-phase systems (Y & delta)
- Readings and charts can be viewed on the large LCD or downloaded to a PC in real-time using Amprobe's Download Suite Software
- Capable of recording all parameters (single- or three-phase) simultaneously
- Optional transducers available for 100A and 3000A (flexible) current capability

| FEATURE | DM-II PLUS |
|---|---|
| AC Voltage | 600 V |
| AC Currrent | 1000 A |
| Optional CT's | 100 A, 3000 A |
| Harmonics | THD, DC to 49th |
| Power | W, VAR, VA |
| Energy | Wh, WARh, VAh |
| Voltage Anomalies | Sag / Surge |
| Power Factor | 0.00 +/- 1.00 |
| Frequency | 50 / 60 Hz |
| Phase Sequence | 1-2-3 |

**INCLUDED ACCESSORIES:** External power supply, 3 clamp meters 1000 A/1 V, voltage test leads, PC software and USB cable, users manual

CAT III 600 V · CE · TÜV · GS · N10140

**RECOMMENDED ACCESSORIES**

| | |
|---|---|
| **DM-CT-100** | **100 Amp Current Transducers** |
| **DM-CT-HTA** | **1000 Amp Current Transducers** (included with DM III Multi-test) |
| **AM-FLEX33** | **3000 Amp Flexible Current Transducer** (included DM III Multi-test F) |

*For detailed specifications go to **www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**DM II PLUS**
POWER QUALITY ANALYZER

# As good as new

## Retro-commissioning is the missing link for improving HVAC plant performance.

Commissioning plant systems–such as boilers, chillers, towers and pumps—used to be a one-time event. But in the quest for ways to keep building performance high and operational costs low, on-going and retro-commissioning maintenance is becoming part of a best-practices regimen. Modern Building Automation Systems (BAS) can provide some of the benefits of on-going commissioning. The self-tuning controls of BAS systems often cover up poorly operating buildings, however. So both buildings with and without BAS need regular inspections and calibrations. If the building equipment was never properly commissioned in the first place, a retro-commissioning is important to evaluate, baseline and make changes to maximize system efficiency. Older buildings with fewer or older controls require more footwork, measurement, analysis and often upgrades.

**Start with preventative maintenance:**

- Measure voltage, current, phase and temperature of electrical equipment and compare to previous records to determine changes in sequence and operation
- Change filters and measure pressure drop of filter banks
- Check RPM of motor-driven equipment of pumps and fans to find drive problems

**Calibrate critical sensors** wired to building automation controls. Sensors that are even a few units out of calibration will cause systems to consume excessive energy.

**Log temperature, pressure and humidity values** and compare to ASHAE or other comfort standards.

**Check air, water, and steam flow rates** with data loggers or field calibrators. Change in flow rates could indicate a fouled heat exchanger, piping or pumping problem.

**Check air, water and steam pressures** and compare to BAS equipment readings and design values to identify efficiency loss.

**Measure indoor air quality** values such as $CO_2$ ppm and correct deteriorations.

**TMA-21HW**
Hot Wire Anemometer for monitoring air flow and indoor air quality

**TMD-55W**
Multilogging Digital Thermometers with wireless communication

**TACH-20**
Combo Tachometer for measuring rotational and surface speed

AMPROBE®
HARD AT WORK SINCE 1948.

HVAC / Environmental

**TARGETED**
**When you need tools designed specifically for all the jobs you do in HVAC, turn to Amprobe. Whether you need to measure temperature, humidity, pressure, or check for leaks, Amprobe's complete line of HVAC/ Environmental tools range from basic tools for simple one-time checks, to specialized wireless instruments offering remote access to measurements.**

## THWD-10 and THWD-10W Relative Humidity and Temperature Meters

**Precisely measure temperature and humidity simultaneously. The precision capacitance sensor delivers accuracy and long-term stability for HVAC, indoor air quality and environmental applications.**

- Wireless two-ways transmission (THWD-10W only)
- Two temperature sensors (internal and external)
- Wet/dry bulb, dew point measurement
- Easy selection between K/NTC/K-DP
- Min/max/average/relative zero and hold

**INCLUDED ACCESSORIES:** Users manual, 4 batteries (installed), type-K thermocouple, USB wireless module and software CD (THWD-10W only)

CE N10140

*TMWD-10 only*

| RECOMMENDED ACCESSORIES | |
|---|---|
| **USB-W1** | **USB Wireless Module (THWD-10W)** (See Page 79 ) |

## THWD-3 and TH-3 Relative Humidity and Temperature Meters

**An exceptionally wide ambient temperature range makes these meters versatile and accurate.**

- Large LCD displays two measurements simultaneously
- Extended probe stem for easy access to air ducts
- Dew point and wet bulb (THWD-3 only)
- Min/max readings
- Temperature measurement range: -4 ˚F (-20 °C) to 140 ˚F (60 °C)
- Data hold
- Capacitive sensor with protective cover
- Auto power-off

**INCLUDED ACCESSORIES:** Carrying case, battery (installed), users manual

CE N10140

| FEATURE | THWD-10W | THWD-10 | THWD-5 | THWD-3 | TH-3 | TH-1 |
|---|---|---|---|---|---|---|
| Wireless Transmission | • | – | – | – | – | – |
| Temperature – External Sensor | -50 °F ➞ 1832 °F (-50 °C ➞ 1000 °C) | | – | – | – | – |
| Temperature – Internal Sensor | 32 °F ➞ 140 °F (0 °C ➞ 60 °C) | | 14 °F ➞ 140 °F, (-10 °C ➞ 60 °C) | -4 °F ➞ 140 °F (-20 °C ➞ 60 °C) | | -44 °F ➞ 122 °F (-20 °C ➞ 50 °C) |
| Relative Humidity | 0% ➞ 100% | | 10 ➞ 90% | 5 ➞ 95 % | | 10 ➞ 95% |
| Dew Point Temp | • | • | • | • | – | • |
| Wet Bulb Temp | • | • | • | • | – | • |

*For detailed specifications go to **www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**THWD-10**
RH METER
**THWD-10W**
RH METER WITH WIRELESS
**THWD-3**
DIG SLING PSYCHROMETER W/DEW & WET BULB READ
**TH-3**
HUMIDITY TEMPERATURE METER





## TH-1 Compact Probe Style Relative Humidity Meter

**Slip this little meter in your pocket and be ready for quick temperature and humidity checks.**

- Displays relative humidity and temperature simultaneously
- Measure wet bulb and dew point
- Precision capacity relative humidity sensor with twistable protective cap
- Results in metric or English
- Stores min/max readings for comparisons
- Data hold

**INCLUDED ACCESSORIES:** Carrying case, users manual, battery

CE N10140

## THWD-5 Relative Humidity and Temperature Meter with Wet Bulb and Dew Point

**Designed for HVAC technicians and plant maintenance engineers, this microprocessor-based psychrometer provides quick, easy access to wet bulb and dew point values as well as temperature and relative humidity.**

- Extended probe for easy access to targets
- Large digital dual display with backlight makes readings easy-to-see
- Temperature with 0.1 degree resolution in °F or °C, front panel selectable
- Stores min/max measurements
- Data hold freezes last reading
- Tripod mountable

| FEATURES | RANGE | BEST ACCURACY |
|---|---|---|
| Relative Humidity | 0 % ➞ 100 % | +/- 3 % from 10 % ➞ 90 % (at cal temp) +/- 5 % for other |
| Temperature | 14 °F ➞ 140 °F (-10 °C ➞ 60 °C) | +/- 0.6 °C (+/- 1 °F) |
| Dew Point Temp | -100.0 °F ➞ 139.8 °F (-73.4 °C ➞ 59.9 °C) | - |
| Wet Bulb Temp | 7.88 °F ➞ 139.8 °F (-13.4 °C ➞ 59.9 °C) | - |

**INCLUDED ACCESSORIES:** Carrying case, users manual, batteries (installed)

CE N10140

### *Wireless communication:*

**Save time and steps with easy remote access to measurements. Check temperatures, change settings, or download logged data to your laptop with wireless two-way transmission up to 80 feet/25 meters without magnetic interference. Available on TMD-53W, TMD-55W, RTD-10W, and THWD-10W.**

*For detailed specifications go to **www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**TH-1**
RH/TEMPERATURE PROBE STYLE METER
**THWD-5**
RH, TEMPERATURE, DP, WB W/FLEX PROBE METER

## TMD 50 Series Thermometers

**The professional choice for HVAC technicians, electricians, research, industrial process, and quality control, these thermometers offer dual inputs for easy super-heat and sub-cool temperature measurement as well as cut-out and cut-in temperature measurements.**

**Choose between models with 0.1% and 0.05% basic accuracy, single and triple displays or memory. Wireless communication is invaluable when you need remote access to measurement data.**

**To monitor and track temperatures, the multi-logging thermometers feature real-time clocks with calendar, user-selectable recording intervals, and easy data recall using up and down keys.**

- Wireless two-way transmission (TMD-53W and TMD-55W only)
- °F/°C selectable
- Dual input: T1, T2, T1-T2
- Warning beeper with Hi/Lo setting alerts you of out-of-range measurement
- Min/max with elapsed time, average, relative, hold functions
- Time and relative settings
- In-field thermocouple offset adjustment
- Robust holster protects the instrument.
- Auto power-off saves batteries

| FEATURE | TMD-50 | TMD-51 | TMD-52 | TMD-53 | TMD-53W | TMD-55 | TMD-56 | TMD-55W |
|---|---|---|---|---|---|---|---|---|
| Thermocouple Type | K | K, J | K, J, T, E | K, J | K, J | K, J, T, E, R, S, N | | |
| Basic Accuracy | 0.1 % | 0.1 % | 0.05 % | 0.05 % | 0.05 % | 0.05 % | 0.05 % | 0.05 % |
| Number of Parameters on the Display | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 |
| Real time clock - Wireless Beeper with Setting | – | – | – | • | • | • | • | • |
| Wireless Transmission | – | – | – | – | • | – | – | • |
| Data Capture | – | 125 Samples | – | – | – | 128 Samples | 256 Samples | 128 Samples |
| Data Logger | – | – | – | – | – | 1024 Points | 16000 Points | 1024 Points |
| PC Interface | – | – | – | – | Wireless | – | USB | Wireless |

*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE®
HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**TMD-50**
THERMOCOUPLE THERMOMETER K TYPE

**TMD-51**
THERMOCOUPLE THERMOMETER K/J TYPE WITH MEMORY

**TMD-52**
THERMOCOUPLE THERMOMETER K/J/T/E TYPE

**TMD-53**
THERMOCOUPLE THERMOMETER K/J

**TMD-53W**
THERMOCOUPLE THERMOMETER K/J WITH WIRELESS

**TMD-55W**
MULTILOGGER THERMOMETER W/ WIRELESS DOWNLOAD

**TMD-56**
MULTILOGGER THERMOMETER

### Temperature Ranges for TMD-50 series depending on thermocouple:

| THERMOCOUPLE TYPE | TEMPERATURE RANGE |
|---|---|
| K-TYPE | -328 °F → 2501 °F (-200 °C → 1372 °C) |
| J-TYPE | -346 °F → 2192 °F (-210 °C → 1200 °C) |
| T-TYPE | -328 °F → 752 °F (-200 °C → 400 °C) |
| E-TYPE | -346 °F → 1832 °F (-210 °C → 1000 °C) |
| R-TYPE | 32 °F → 3212 °F (0 °C → 1767 °C) |
| S-TYPE | 32 °F → 3212 °F (0 °C → 1767 °C) |
| N-TYPE | -58 °F → 2372 °F (-50 °C → 1300 °C) |





Dual Input Digital Thermometers with 0.1% basic accuracy

## TMD-50, TMD-51, TMD-52

**These highly accurate thermometers give precise measurements on a large, easy-to-read backlit display. The robust holster protects the instrument. Auto power-off saves batteries.**

CE N1014(

- Dual input: T1, T2, T1-T2 °F/°C selectable
- Built-in memory for 125 samples (TMD-51 only)
- Average/relative zero functions (TMD-50/TMD-52 only)
- Min/max/hold functions
- In-field thermocouple offset adjustment

**INCLUDED ACCESSORIES:** Users manual, 2 type-K thermocouple, 4 batteries (installed)

Dual Input Digital Thermometers with 0.05% basic accuracy

## TMD-53, TMD-53W

**When your application demands even higher accuracy, choose these models. A warning beeper with Hi/Lo setting alerts you of out-of-range measurements.**

CE N10140
*TMD-53 only*

- Wireless two ways transmission (TMD-53W only)
- K/J-type thermocouple selection
- Dual input
- Min/max with elapsed time, average, relative, hold functions
- Time and relative settings
- 0.05 basic accuracy to 0.2 °F (0.1 °C) resolution
- °F/°C selectable

**INCLUDED ACCESSORIES:** USB wireless module and softare CD (TMD-53W only), users manual, 2 type-k thermocouple, batteries (installed)

**RECOMMENDED ACCESSORIES**

**USB-W1** **USB Wireless Module** (TMD-53W)

The wireless way to log temperatures

## TMD-55, TMD-55W, TMD-56 Multi-logging Digital Thermometers with 0.05% Basic Accuracy

**Monitor and track temperatures with these multi-logging thermometers. All models feature a backlit triple-display, real-time clock with calendar and user-selectable recording intervals. Easy data recall using up and down key.**

CE N10140
*TMD-55 & TMD-56 only*

- Wireless two way transmission and data download (TMD-55W only)
- USB computer download (TMD-56 only)
- Data capture: 128 samples with real-time data per input
- Data logging: 16 sets, maximum 1,024 data points
- Thermocouple offset adjustment
- Record, max, min, max-min, average, relative zero and hold functions
- Warning beeper with Hi/Lo setting
- Resolution 0.1 °F/1 °F (0.1 °C/1 °C)

**INCLUDED ACCESSORIES:** USB wireless module and software CD (TMD-55W), USB cable and software CD(TMD-56 only), users manual, 2 type-k thermocouple, batteries (installed)

**RECOMMENDED ACCESSORIES**

**USB-W1** **USB Wireless Module** (TMD-55W)

## RTD-10 and RTD-10W Dual Input Digital RTD Thermometers

**Resistive thermal devices (RTDs) are becoming the preferred temperature sensors for precision industrial applications. Instead of generating voltage, RTDs generate electrical resistance, which varies linearly with temperature. Amprobe RTD thermometers maintain long-term stability for superior repeatability of measurements, when compared to thermocouples.**

- RTD dual-input function
- Pt3916/Pt3926/Pt385 RTD standard
- °F/°C user-selectable
- Min/max with elapsed time, average, relative, hold functions
- Resolution to 0.2 °F (0.1 °C)
- Wireless two-way transmission (RTD-10W only)
- Warning beeper with Hi/Lo setting alerts you to out-of-range temperatures

| FEATURE | RTD-10 | RTD-10W |
|---|---|---|
| Wireless Transmission | - | • |
| Temperature | RTD: Pt385 (100 Ω), Pt3916/Pt3926 (100 Ω)<br>Range: Pt385 (100 Ω): -328 °F ➞ 1472 °F (-200 °C ➞ 800 °C)<br>Pt3916 / Pt3926 (100 Ω): -328 °F ➞ 1166 °F (-200 °C ➞ 630 °C) | |
| Accuracy | +/- (0.05 %rdg + 0.4 °F) on °F scale<br>+/- (0.05 %rdg + 0.2 °C) on °C scale | |
| Number if parameters on the Display | 3 | |

**INCLUDED ACCESSORIES:** USB wireless module and software CD (RTD-10W), 2 RTD probes, users manual, batteries (installed)

CE N10140

*RTD-10 only*

| RECOMMENDED ACCESSORIES | |
|---|---|
| **USB-W1** | **USB Wireless Module** (RTD-10W) |

## TMD90A Dual Input Digital Thermometer with Triple Display

**This high-accuracy dual input thermometer offers a wide temperature range and accepts six types of thermocouples: J, K, T, R, S, E.**

- Dual inputs for easy super-heat and sub-cool plus cut-out and -in temperature measurements
- Triple display with backlight shows T1, T2, and T1 - T2
- Hold, min/max, relative, and timer
- Date stamp function
- Optional PC interface for real-time data acquisition

| SPECS | RANGE | BEST ACCURACY |
|---|---|---|
| Type K | -328 °F ➞ 2498 °F (-200 °C ➞ 1370 °C) | 0.1 % rdg + 1.4 °F (0.1 % rdg + 0.7 °C) |
| Type J | -328 °F ➞ 1400 °F (-200 °C ➞ 760 °C) | 0.1 % rdg + 1.4 °F (0.1 % rdg + 0.7 °C) |
| Type T | -328 °F ➞ 730 °F (-200 °C ➞ 390 °C) | 0.1 % rdg + 1.4 °F (0.1 % rdg + 0.7 °C) |
| Type R & S | 32 °F ➞ 3200 °F (0 °C ➞ 1760 °C) | 0.1 % rdg + 1.4 °F (0.3 % rdg + 0.7 °C) |
| Type E | -328 °F ➞ 1832 °F (-200 °C ➞ 736 °C) | 0.1 % rdg + 1.4 °F (0.3 % rdg + 0.7 °C) |

**INCLUDED ACCESSORIES:** 2 type-K thermocouple probes, hard carrying case, battery (installed), users manual

CE N10140

| RECOMMENDED ACCESSORIES | |
|---|---|
| **TM-SWA** | **USB Download Cable and Software CD** (See Page 79) |

*For detailed specifications go to **www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**RTD-10W**
RTD THERMOMETER WIRELESS
**RTD-10**
RTD THERMOMETER
**TMD90**
DUAL INPUT DIGITAL THERMOMETER, TYPE K,J,T,R,S,E





## TMD-10 Dual Temperature Portable Thermometer

**This completely portable dual-input, dual-display thermometer offers a number of handy features.**

- Compatible with type-K and type-J thermocouples
- Dual temperature for easy super-heat and sub-cool calculations
- Selectable °F/°C
- Min/max recording
- Relative reading (T1 – T2)
- Data hold function to retain reading on the screen for later viewing
- Low battery indication

| THERMOCOUPLE | RANGE | BEST ACCURACY |
|---|---|---|
| Type-K | -328 °F ➞ 2498 °F (-200 °C ➞ 1370 °C) | +/- (0.05 % + 1.4 °F) |
| Type-J | -328 °F ➞ 1922 °F (-200 °C ➞ 1050 °C) | +/- (0.05 % + 0.7 °F) |

**INCLUDED ACCESSORIES:** Carrying case, battery (installed), 2 type-K probes, users manual

CE N10140

For non-contct temperature measurement – Infrared Thermometers

## IR-500 Infrared Thermometer, Voltage Detector and Flashlight

*Available June 2011*

**Shine the light on temperature and voltage with a must-have tool you'll reach for everyday.**

- Verify temperature without contact using the laser pointer
- Non-contact ac voltage detection with light and sound
- Ultra bright LED flashlight built in
- Holds temperature reading (selectable °F / °C) for ten seconds
- Accuracy: +/- 2 °F (+/- 1 °C)

## IR608A Infrared Thermometer with Laser Pointer

**Point and press for quick and easy non-contact temperature measurement. Use this effective diagnostic tool to identify temperature for HVAC, fire safety and protection, industrial maintenance, automotive and quality control.**

- Comfortable "pistol grip" design
- Small enough to fit in your pocket
- Laser sighting for accurate targeting (CE EN60825 certified Class II)
- Display hold
- Fast response time
- Backlight display for visibility in a variety of working conditions
- Low battery Indicator

| SPECIFICATIONS | IR608A | IR-500 |
|---|---|---|
| Range | 0 °F ➞ 750 °F (-18 °C ➞ 400 °C) | 14 °F ➞ 932 °F (-10 °C ➞ 500 °C) |
| Distance to spot size | 8:1 ratio | |
| Resolution | 0.5 °F (0.2° C) | |
| Accuracy | +/- 2 % of reading or +/- 3.5 °F (+/- 2 °C) which ever is greater | +/- 2 °F (1 °C) |
| Emissivity | Pre-set 0.95 | |

**INCLUDED ACCESSORIES:** Battery (installed), users manual. pocket clip (IR-500 only)

CE N10140

*For detailed specifications go to **www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**TMD-10**
DUAL CHANNEL THERMOMETER, TYPE K, J
**IR-500**
PEN TYPE IR THERMOMETER
**IR608A**
IR THERMOMETER, PISTOL GRIP, LASER POINTER

TR100-A

TR200-A

## TR100-A and TR200-A Temperature and Relative Humidity Data Loggers

**One compact unit monitors both temperature and humidity and records it on your PC using the USB interface. Amprobe software included.**

- Record sample interval timing, start/stop, date, time, Hi/Lo alarm threshold, and units
- Visible LED warnings alert you to air quality problems
- IP-65 rating for dust and moisture
- Wall mountable

TR300

## TR300 Temperature and Relative Humidity Data Logger

**Wall-mountable, self-standing, or tri-pod mountable, this data logger configures to your application.**

- Temperature, relative humidity, dew point or web bulb measurements with real-time date/hour stamp
- Audible and visible alarms help you monitor IAQ conditions
- Stores up to 16,000 readings
- Records data to a PC with USB cable and Amprobe software included
- Programming on-screen or from the PC

| FEATURES | TR100-A | TR200-A | TR300 |
|---|---|---|---|
| Dual Display LCD | - | - | • |
| Air Temperature Reading | -40 °F → 185 °F (-40 °C → 85 °C) | -40 °F → 185 °F (-40 °C → 85 °C) | -4 °F → 158 °F (-20 °C → 70 °C) |
| Temperature Accuracy | +/- 1 °F (+/- 0.6 °C) | +/- 1 °F (+/- 0.6 °C) | +/- 1 °F (+/- 0.6 °C) |
| RH Reading | - | 0.0 to 99.9 % | 0 to 100 % |
| RH Accuracy | - | +/- 3 % at 77 °F (25 °C) | +/- 3 % from 10 - 90 % |
| Recording | 16 k | 16 k | 16 k |
| Dew Point Reading | - | - | • |
| On Screen Programmable | - | - | • |
| Software Programmable | • | • | • |

** Visible alerts only on TR100-A and TR200-A*

**INCLUDED ACCESSORIES:** Batteries (installed), users manual, PC software CD and USB cable

CE N10140

**RECOMMENDED ACCESSORIES**

| | |
|---|---|
| **TPK-60** | **Type-K external temperature probe** |



*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**TR300**
TEMPERATURE/RH DATA LOGGER, DP, DUAL DISPLAY
**TR100-A**
TEMPERATURE DATA LOGGER W/DIG DISPLAY AND USB
**TR200-A**
TEMPERATURE/RH DATA LOGGER W/DIG DISPLAY AND USB
**MT-10**
MOISTURE METER

## MT-10 Moisture Meter

**Measure the moisture content of wallboard, wood, mortar, plaster or other building materials to identify areas of water damage or harmful mold growth. Check wood or concrete flooring before installation, wood during drying or before woodworking.**

- Three-color LED indicates moisture severity
- Backlight makes display visible in dim areas

**INCLUDED ACCESSORIES:** Users manual, battery

## TMA5 Mini Vane Anemometer

**This pocket-sized tool gives you an easy way to measure air flow, temperature and humidity in the HVAC systems of residential, commercial or industrial buildings.**

- Measures air velocity, temperature and ambient temperature (in °F or °C), humidity, dew point, wet bulb, wind chill
- Simple, two-button operation
- Selectable wind units: KNT (Knot), BF (Beaufort), ft/m (feet per minute), M/h (mile per hour), m/s (meter per second), km/h (kilometer per hour)
- Maximum wind speed display
- Data hold
- Auto power-off with disable feature
- Low battery indication
- Ergonomic design with wrist strap
- External temperature probe included

| FEATURE | TMA5 |
|---|---|
| Wind Speed Range | 0.5 → 44.7 mph, 60 → 3937 ft/m, 0.4 → 38.8 knt, 1.1 → 20.0 m/s, 0.7 → 72.0 kmh, 1 → 8 BF |
| Air Temperature Range | 32 °F → 122 °F (0 °C → 50 °C) |
| External Temperature Range | -4 °F → 158 °F (-20 °C → 70 °C) |
| Air RH% Range | 5 % → 95 % RH |
| Wind Speed Response | averaging every 2 seconds |
| Temperature Response Time | 60 seconds (typical) |
| Air RH% Response Time | 60 seconds (typical) |
| Wind-Chill Display | • |
| Dew Point Temperature | • |
| Wet Bulb Temperature | • |

**INCLUDED ACCESSORIES:** Battery (installed), users manual, external temperature probe, ergonomic wrist strap

CE N10140

**RECOMMENDED ACCESSORIES**

| | |
|---|---|
| **TPK-60** | **Type-K external temperature probe** |

## TMA10A Anemometer with Flexible Precision Vane

**The essential tool for HVAC technicians, the TMA10A measures air velocity or volume (CFM), plus temperature. Just enter surface area type for accurate airflow measurements.**

- Large dual display for viewing airflow or velocity measurement plus temperature
- Long flexible cord to access remote vanes
- Continuous moving average for up to 2 hours
- Air velocity average for up to 8 points
- Multi-point air flow (cfm) average
- Optional PC interface for charting or analysis
- Min/max/average reading on a single point
- Data hold
- Auto power-off function

| FUNCTION | RANGE | BEST ACCURACY |
|---|---|---|
| Air Velocity | 0.40 → 25.00 m/s | +/- 2% of full scale |
| | 125 → 4900 ft/min | +/- 2% of full scale |
| Air Flow | 0.01 → 99.99 $m^3$/sec | 0 → 9.999 m |
| | 1 ft → 9999 cfm | 0 → 9.999 ft |
| Air Temp. °F (°C) | 32 °F → 122 °F (0 °C to 50 °C) | +/- 1.5 °F (0.8 °C) |

**INCLUDED ACCESSORIES:** Carrying case, battery (installed), users manual, optional PC interface for charting or analysis

CE N10140

**RECOMMENDED ACCESSORIES**

| | |
|---|---|
| **TM-SWA** | **USB Download Cable and Software CD** (See Page 79) |

*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**TMA5**
MINI-VANE ANEMOMETER
**TMA10A**
ANEMOMETER THERMOMETER

## Anemometers – Air flow simplicity and science

## TMA40-A Anemometer, Relative Humidity and Temperature

**With one tool, you can measure air velocity (FPM) or air volume (CFM), relative humidity, and temperature. Large digital display with backlight and flexible measurement vane makes measuring easier in difficult areas. Measures up to 99 points and logs up to 2,400.**

- Flexible measurement vane for accessing difficult areas
- Measures air velocity (fpm), air volume (cfm), relative humidy, and temperature
- Measure multiple points up to 99
- Data logging up to 2400 data points
- Optional PC interface for charting or analysis
- Large digital display with backlight

| FUNCTION | RANGE | RESOLUTION | ACCURACY |
|---|---|---|---|
| Air Velocity | 0.4 m/s → 32 m/s | 0.1 m/s | +/- 3 % |
| Air Volume | .0 → 99999 (cfm/cmm) | 0.1 CMM - 1 CFM | +/- 3 % |
| Temperature | -4 °F → 158 °F (-20 °C → 70 °C) | 0.1 °F (0.1 °C) | +/- 0.6 % |
| Relative Humidity | 0 → 100 % | 0.1 % | +/- 3 % @ 77 °F (25 °C) |

**INCLUDED ACCESSORIES**: Carrying case, battery (installed), users manual, optional PC interface for charting or analysis

N10140

**RECOMMENDED ACCESSORIES**

**TM-SWA** **USB Download Cable and Software CD**
(See Page 79)

## TMA-20HW, TMA-21HW Hot Wire Anemometers

**Hot wire anemometer technology eliminates bearings and rotating parts to make these meters durable and measurements stable and accurate. It's the simple, safe way to monitor indoor air quality and measure air flow and temperature in residential, commercial and industrial air conditioning systems.**

- Four-foot telescopic wand - no ladder needed for most commercial applications
- Measures air flow volume in CFM, CMM
- Instant average, 2/3 Vmax flow measurements
- Velocity m/s, ft/min, knots, km/hr, mph.
- Relative humidity and temperature measurement (TMA-21HW only)
- Data hold, min/max with time stamp
- Data memory and real-time function (99 sets)
- 512KB auto data-logging capacity (TMA-21HW)
- USB interface (TMA-21 only)
- Wet bulb and dew point
- Large backlight LCD display shows five parameters

| FEATURE | TMA-20HW | TMA-21HW | BEST ACCURACY |
|---|---|---|---|
| Air Flow | 0.10 m/s → 30.00 m/s<br>0.2 km/hr → 110.0 km/hr<br>10 ft/min → 6000 ft/min<br>0.10 knots → 59.0 knots<br>0.12 MPH → 68.00 MPH | | +/- 3 % of rdg +/-1 %FS |
| Air Flow Volume | 0.000 CFM → 999900 CFM<br>0.000 CFM → 999900 CMM | | +/- 3 % |
| Temperature | - | - 4 °F → 140 °F<br>(-20 °C → 60 °C) | +/- 0.9 °F (+/- 0.5 °C,) |
| Relative Humidity | - | 0.0 → 100 % | +/- 3 % |
| Data Logging and USB Interface | - | • | - |
| Wet bulb/Dew Point | - | • | - |

**INCLUDED ACCESSORIES**: Batteries (installed), hard carrying case, users manual, USB cable and PC software (TMA-21HW only)

N10140

*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**TMA40-A**
ANEMOMETER, TEMPERATURE, RH TESTER
**TMA-20HW**
HOT WIRE ANEMOMETER
**TMA-21HW**
HOT WIRE ANEMOMETER





## Keep environments safe – Gas Leak Detectors

## RLD-1 Refrigerant Leak Detector

**Troubleshoot air conditioning systems quickly and accurately with the RLD-1. State-of-the-art technology makes it easy to precisely pinpoint a wide variety of halogenated refrigerant leaks.**

- Detects R-134a, R-404a, R-407c, R-410a, R-22, Freon and other refrigerants
- Sensitive gas sensor and advanced digital signal processing for high accuracy
- Built-in suction pump for precise sensor response
- Tri-color LED display and audio clearly indicate leaks
- High-Medium-Low (H/M/L) leak sensitivity selector
- Automatic zero and background compensation
- Low battery indication
- Ambient concentration reset

**RECOMMENDED ACCESSORIES**

**RLD-1 SENSOR** **Replacement Sensor**

| FEATURE | RFD-1 |
|---|---|
| Detectable Gases | R-134a, R-404A, R-407C, R-410A, R-22, Freon |
| R-22, 134a Sensitivity | H - 3g/year, M - 15g/year, L - 30g/year |
| R-404A, 407C, 410A Sensitivity | H - 4g/year, M - 20g/year, L - 40g/year |
| Alarm Method | Buzzer, Tricolor LED bar Indicator |
| Power Usage | 2 C size (3V DC) Alkaline Batteries |
| Snake Tube Length | 15.5" (40 cm) |

**INCLUDED ACCESSORIES**: Batteries (installed), users manual, carrying case, leak check bottle, AC adapter

N10140

## GSD600 Gas Leak Detector

**Detect dangerous methane or propane leaks that can lead to explosions and gas poisoning. With its five-level LED and audible alarms, the GSD600 helps you assess whether the area is safe or needs to be vented. The frequency of the beeping increases with the concentration of the gas, allowing you to pinpoint the source of the leak in piping or appliances. The display provides an accurate measurement of the gas present in the area.**

- Detects combustible gases
- Quickly identifies and pinpoints gas leaks for closed piping systems
- Automatic calibration feature
- 5 level LED alarm: >40, >80, >160, >320, and >640 ppm
- Mute function and LED alerts for quiet areas
- Built-in earphone jack (earphone not included) for loud envirorments
- Flexible probe to access difficult measurement areas
- Auto power-off

| FEATURE | RANGE |
|---|---|
| Methane | 40 ppm → 640 ppm |
| Propane | 35 ppm → 580 ppm |
| Sensitivity | 35 ppm (propane) |

**INCLUDED ACCESSORIES:** Battery (installed), carrying case, users manual

N10140

*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**RLD-1**
REFRIGERANT LEAK DETECTOR
**GSD600**
GAS LEAK DETECTOR FOR METHANE AND PROPANE

## TX900 Microwave Leak Detector

**For domestic and commercial appliance engineers who service microwave ovens, the TX900 verifies if the oven operates in accordance with current standards and regulations.**

- Measures for wave leakage and tests oven power
- 8 dipole sensors to detect plane wave signals of any polarization
- Temperature compensation for accurate readings regardless of ambient temperature changes
- Analog Bar Graph
- Compact, ergonomic design
- Low battery indicator
- Auto-zero

| FEATURE | TX900 |
|---|---|
| RF Power Sensing Range | 0 mW/cm² → 10 mW/cm² |
| Nominal Detecting Frequency | 2.45 GHz |

**INCLUDED ACCESSORIES:** 2 x 500 ml plastic beakers, spirit (alcohol), glass thermometer, battery installed), carrying case, users manual

CE N10140

## Ultrasonic Leak Detectors

**When leaks occur in pressurized systems, they emit an ultrasonic frequency humans can't hear. These ultrasonic leak detectors convert the sounds into an audible range for fast, easy leak detection.**

*TMULD-300* *ULD-300*

## ULD-300 Ultrasonic Leak Detector

**Quickly locate gas leaks in pressurized air lines, steam lines, and refrigeration systems regardless of gas type (CFC, HFC, nitrogen and other non-combustible gases).**

- Locates arcing in an electrical system
- Finds the ends of buried PVC pipes
- Parabola shield reduces background noise
- Access difficult or dangerous areas with extension tube

CE N10140

**INCLUDED ACCESSORIES**: Flexible tubing adapter, tubular extension, carrying case, power parabola, headphone, batteries (installed)

## TMULD-300 Ultrasonic Leak Detector with Ultrasonic Transmitter

**When leaking gases are not sufficiently pressurized, use the TMULD-300. It includes an ultrasonic transmitter that creates sound waves so you can check door or trunk seals for air tightness, or windshields for water tightness.**

- Same features as ULD-300
- Transmitter "pressurizes" an area with ultrasonic sound

CE N10140

**INCLUDED ACCESSORIES**: Flexible tubing adapter, tubular extension, carrying case, power parabola, headphone, batteries (installed), UT-300 transmitter

| RECOMMENDED ACCESSORIES | |
|---|---|
| **UT300** | **Ultrasonic Transmitter (ULD-300)** |

*For detailed specifications go to **www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**TX900**
MICROWAVE LEAKAGE DETECTOR KIT
**ULD-300**
ULTRASONIC LEAK DETECTOR
**TMULD-300**
ULTRASONIC LEAK DETECTOR with TRANSMITTER





## CM-100 Carbon Monoxide Meter

**This compact meter measures the presence of CO and warns you when it exceeds safe levels.**

- Alarm is preset to 25 ppm to warn about possible danger
- Adjustable CO warning levels: 25, 30, 35, 45, 50, 70, 100 and 200 ppm
- Backlight for viewing in dim areas
- Auto power-off to save batteries
- Self-test feature
- Dual digital backlit display

| FEATURE | CM-100 |
|---|---|
| Range | 0 ppm → 999 ppm |
| Resolution | 1 ppm |

**INCLUDED ACCESSORIES:** Users manual, batteries (installed)

CE N10140

## CO2-100 Handheld $CO_2$ Meter

**Get instant feedback on $CO_2$ levels up to 9,999 ppm, while you check the air quality compliance of hospitals, schools, offices, or production floors.**

- Large, easy-to-read triple LCD display of $CO_2$, temperature and relative humidity
- Selectable display of dew point and wet bulb
- High performance low-drift sensor designed with NDIR (Non-Dispersive Infrared) waveguide technology
- Backlight for working in dim areas
- TWA (time-weighted average) display for an 8-hour period
- 15 minutes STEL (short-term exposure limit) value
- Audible alarm threshold setting by carbon dioxide level
- Data hold, min/max, average functions
- Long term drift compensation for accurate readings

CE N10140

**INCLUDED ACCESSORIES:** Batteries (installed), users manual, carrying case

## CO2-200 Wall-Mounted $CO_2$ Meter

**Monitor critical, environmentally controlled areas such as laboratories and production facilities with this permanently mounted air quality meter.**

- $CO_2$ measurements up to 9,999 ppm, temperature, relative humidity, dew point and wet bulb
- Audible alarm threshold setting for carbon dioxide levels with output drive relay to control air flow system
- High performance low drift sensor designed with NDIR (Non-Dispersive Infrared) wave guide technology with automatic back ground calibration
- Recording of min, max and average values with recall function
- Data hold

CE N10140

**INCLUDED ACCESSORIES:** Batteries (installed), carrying case, power adapter 110-240 V AC, users manual

| FEATURE | CO2-100 | CO2-200 |
|---|---|---|
| C02 | 0 → 9999 ppm | 0 → 9999 ppm |
| Temp. Range | 14 °F → 140°F (-10 °C → 60 °C ) | 14 °F → 140 °F (-10 °C → 60 °C) |
| RH Range | 0 % → 95 % | 0 % → 95 % |
| DP (Dew Point Temp.) | -4 °F → 139.8 °F (-20 °C → 59.9 °C) | -4 °F → 139.8 °F (-20 °C → 59.9 °C) |
| WB (Wet Bulb Temp.) | 24.8 °F → 139.8 °F (-5.0 °C → 59.9 °C) | 23 °F → 139.8 °F (-5.0 °C → 59.9 °C) |
| Resolution | 1 ppm - $CO_2$ concentration, 0.1 °C / °F - Temp, 0.1 %RH - Humidity | 1 ppm - $CO_2$ concentration, 0.1 °C / °F - Temp, 0.1 %RH - Humidity |

*For detailed specifications go to **www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**CM-100**
CARBON MONOXIDE METER W/ADJUSTABLE CO LEVELS
**CO2-100**
CO2 METER
**CO2-200**
CO2 MOUNTABLE METER

## Manometers – Keep environment safe

### MAN02-A, MAN15, and MAN30 Manometers

**Handheld, accurate and featuring an internal time clock to capture events, these tools are essential for testing gauges, valves and control sensors in pneumatic control, HVAC and medical pressure environments.**

- Maximum and minimum value recordings with time stamp for adjusting and trouble-shooting pressure systems
- Three models to choose from: 2, 15 or 30 PSI
- Five selectable units of measure: inH2O, psi, mbar, bar, mmH2O
- Large backlit LCD makes readings visible in all light conditions
- USB port for data downloads with optional PC interface
- Data hold

| FEATURE | MAN02-A | MAN15 | MAN30 |
|---|---|---|---|
| Measuring Range | 2 psi (13.8 kPA) | 15 psi (103.5 kPA) | 30 psi (206.9 kPA) |
| Accuracy | +/- 0.3 % of full scale at +/- 77 °F (25 °C) | Max 1 % full scale at +/- 77 °F (25 °C) | Max 1 % full scale at +/- 77 °F (25 °C) |
| Response Time | 0.5 second | 0.5 second | 0.5 second |
| Sensitivity Resolution | per 0.401 inH2O / 0.001 per 0.0145 psi / 0.1 per mbar | 0.01 psi / 0.1kPA / 0.5mmHg / 0.001 kg/cm² | 0.01 psi / 0.1kPA / 0.5mmHg / 0.001 kg/cm² |

**INCLUDED ACCESSORIES**: Battery (installed), 2 hoses, users manual, carrying case

CE N10140

## Tachometers – Accurate, reliable, repeatable

### TACH-10 and TACH-20 Combo Tachometers

**Measure rotational speed of motors, conveyor belts and other moving or rotating systems with these handheld tachometers. The TACH-20, our top-of-the-line tachometer includes six adapters, a surface speed wheel for contact RPM measurement, and an infrared beam for non-contact measurements. The TACH-10 is an economical, universal tachometer that measures rotational and surface speed using both contact and non-contact methods.**

- Built-in memory function automatically stores maximum, minimum, and average values as well as the last measurement displayed
- Easy to select units and mode functions
- Select RPM using infrared beam or adapter: m/min, m/sec, ft/min, ft/sec, in/min, m, ft, and in.
- Auto power-off function

| FEATURE | TACH-10 | TACH-20 |
|---|---|---|
| Rotation (Non-Contact) | 10.0 rpm ➞ 99999 rpm | 1 min ➞ 99999 min |
| Rotation (Contact) | 10.0 rpm ➞ 19999 rpm | 1 min ➞ 19999 min |
| Surface Speed (Contact) | 1.0000 m/min ➞ 9999.9 m/min<br>3.0000 ft/min ➞ 30,000 ft/min | 0.10 ➞ 1999 m/min<br>0.40 ➞ 6550 ft/min |

**INCLUDED ACCESSORIES:** Batteries (installed), users manual, reflective tape, carrying case, adapters

CE N10140

*For detailed specifications go to **www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**MAN02-A**
2 PSI MANOMETER
**MAN15**
15 PSI MANOMETER
**MAN30**
30 PSI MANOMETER
**TACH-10**
CONTACT/NON-CONTACT TACHOMETER
**TACH-20**
CONTACT/NON-CONTACT TACHOMETER





## Conserve energy – Light Meters

### LM-100 and LM-120 Light Meters

**These portable, easy-to-use digital light meters measure interior illumination levels from fluorescent, metal halide, high-pressure sodium or incandescent sources. Switch off, reduce or increase the output level of lighting fixtures. Reduce the energy burden of the building by significantly increasing the efficiency of its lighting system.**

- Measure in lux or footcandles, front panel switchable
- Simple, one-handed operation
- Silicon photodiode sensor and filter for accuracy and high-resolution
- Analog dc voltage output to operate with chart recorder or data logger (LM-120 only)
- Zero adjustment (LM-120 only)
- Auto power-off to save battery life

| FEATURES | LM-120 | LM-100 |
|---|---|---|
| Ranging | Automatic / Manual | Manual |
| Illumination Sensor | Silicon photodiode and filter | |
| Range Lux | 20, 200, 2000, 20000, 200000 | |
| Range Footcandles | 20, 200, 2000, 20000 | |
| Calibration Point | 2854 °K Cosine Angular corrected per JIS C 1609:1993 and CNS 5119 general A class | |
| Data | Data hold, min/max | Data hold |

**INCLUDED ACCESSORIES**: Batteries (installed), carrying case, users manual

CE N10140

### LM-200 LED Light Meter

**This professional tester accurately measures light output of LED sources for all visible light ranges.**

- Lux or footcandle measurement units, user selectable
- Built-in memory stores up to 99 records storage
- Data hold
- Max recording captures highest light measurement
- Measuring lights source include all visible ranges
- Accurate measurements with spectral response close to CIE luminous spectral efficiency
- Angled light cosine correction
- Extendable wire (approximately 5 ft/1.5 m)
- Measurements according to JISC1609:1993 and CNS 5119 general A class specifications

| FEATURE | LM-200 LED | BEST ACCURACY |
|---|---|---|
| LED Light Measurement | 40 lux, 400 lux, 4,000 lux, 40,000 lux, 400,000 lux | +/- 3% (Calibrated to standard incandescent lamp 2856° K) and corrected LED day while-light spectrum. |
| | 40, 400, 4,000, 40,000 footcandle | |

**INCLUDED ACCESSORIES**: Users manual, battery (installed), carrying case

CE N10140

*For detailed specifications go to **www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**LM-100**
LIGHT METER MANUAL RANGING
**LM-120**
LIGHT M ETER AUTO RANGING
**LM-200LED**
LED LIGHT METER

## Water Quality Meters

**Keep the costs and risks of maintaining water quality, distribution and waste under control with these easy-to-use, one-touch water quality meters. Facility Managers can take control of monitoring regulatory compliance and troubleshoot corrosion in building water/waste water systems. Use for a wide range of applications including pools, aquariums, labs, aquaculture, car washes, water testing and waste water treatment.**

## WT-10 PH/mV Pen-Type Water Quality Meter

**Useful in a wide range of applications including pools, aquariums, labs, aquaculture, car washes, water testing and waste water treatment.**

- Measures pH and temperature (selectable °C and °F)
- Replaceable pH electrode
- Automatic temperature compensation ensures accuracy
- Convenient pen size with pocket clip and easy-to-read, 45°-angle display
- Waterproof and dustproof, IP67-rated
- Hold, min/max, record

**INCLUDED ACCESSORIES**: Users manual, batteries, carrying case

## WT-20 Conductivity / TDS Pen-Type Water Quality Meter

- Measures conductivity, TDS (adjustable from 0.4 to 1.0) and temperature (selectable °C and °F)
- Waterproof and dustproof, IP67-rated
- Pen size fits in a pocket
- Convenient membrane keypad

**INCLUDED ACCESSORIES**: Users manual, batteries

## WT-30 Salinity Pen-Type Water Quality Meter

- Measures salinity (NaCL) and temperature (selectable °C and °F)
- Built-in NaCL temperature coefficient, and NaCL conductivity-to-TDS conversion factor
- Waterproof and dustproof, IP-67 rated
- Data hold
- Pen size fits in a pocket

**INCLUDED ACCESSORIES**: Users manual, batteries

| FEATURE | WT-10 | WT-20 | WT-30 |
|---|---|---|---|
| pH | 0.00 → 14.00 (±0.01 pH) | – | – |
| Conductivity | – | 0 uS → 1999 uS, 0 mS → 19.99 mS | – |
| TDS | – | 0 →1999 ppm / 0 → 19.99 ppt | – |
| Salinity | – | – | 0.00 → 70.0 ppt |
| mV | – | – | – |
| Dissolved Oxygen | – | – | – |

CE N10140

*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**WT-10**
PEN TYPE PH METER
**WT-20**
CONDUCTIVITY / TDS PEN
**WT-30**
SALINITY PEN





## WT-40, WT-70 and WT-80 PH/ORP Water Quality Meters

**Check the pH or ORP in pools, spas, aquariums, labs, aquaculture, sanitation plants, car washes, hydroponics, water and wastewater treatment plants.**

- Displays pH / mV and temperature (selectable °C and °F)
- pH electrode with automatic temperature compensation for accuracy
- USB port for data download to a PC
- Backlight display for visibility in dim areas
- Min/max and data hold

**INCLUDED ACCESSORIES**: Users manual, batteries, carrying case, probe pH standard solution (WT-40 only)

## WT-50 Dissolved Oxygen Water Quality Meter

**Monitor oxygen levels for fish and shrimp farming, check the quality of industrial plant water intake and discharge, test biochemical oxygen demand for environmental water quality, or take quick, accurate dissolved oxygen readings in laboratories and schools.**

- Accurate dissolved oxygen and temperature (selectable °C and °F) measurements
- Salinity and barometric pressure compensation
- Built-in memory stores up to 99 measurements with time and temperature
- USB port for downloading data to a PC
- Min/max, data hold
- Backlight for visibility in dim lighting

**INCLUDED ACCESSORIES**: Users manual, batteries, carrying case, probe pH standard solution, syringe, membrane, O-ring

## WT-60 Conductivity / TDS Water Quality Meter

- Measures conductivity, TDS, and temperature (selectable °C and °F)
- Automatic and manual temperature compensation
- Cell content normalization with selectable temperature
- Selectable conductivity to TDS conversion factor
- Backlit display for visibility in dim areas
- Auto or manual ranging, data hold
- USB download capabilities

**INCLUDED ACCESSORIES**: Users manual, batteries

| FEATURE | WT-40 | WT-50 | WT-60 | WT-70 | WT-80 |
|---|---|---|---|---|---|
| pH | 0.00 → 14.00 | – | – | – | 0.00 → 14.00 |
| Conductivity | – | – | 0 → 19.99, 199.9,1999 uS/cm/ 0 → 19.99, 0 → 199.9 mS/cm | – | – |
| TDS | – | – | 0.00 → 19.99ppm, 0.0 → 199.9ppm, 0 → 1999ppm / 0.0 → 19.99ppt, 0 → 199.9ppt | – | – |
| Salinity | – | 0.0 → 50.0 ppt | – | – | – |
| mV | -199.9 → 199.9 mV, -1999 → 1999 mV | – | – | -199.9 → 199.9 mV, -1999 → 1999 mV | -199.9 → 199.9 mV, -1999 → 1999 mV |
| Dissolved Oxygen | – | 0.0 → 199.9 %, 0.00 → 19.99 ppm | – | – | – |

CE N10140

*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**WT-40**
DUAL DISPLAY PH, MV & TEMP METER
**WT-50**
DISSOLVED OXYGEN METER
**WT-60**
CONDUCTIVITY/TDS/TEMP METER
**WT-70**
ORP/ TEMPERATURE METER
**WT-80**
PH/ORP METER

## Sound Meters – Check compliance and analyze acoustics accurately

### SM-10 and SM-20A Sound Meters

**These sound meters meet the measurement needs of safety engineers, health, industrial and safety offices as well as quality control. Use them to check compliance with safety regulations and perform acoustic analysis. They use two different weighting filters required by the IEC 651 and ANSI S1.4 Type 2 for audio filtering.**

- A-weighting for general noise sound level
- C-weighting for measuring sound level of acoustic material control in various environments
- Display with 0.1dB steps on a 4-digit LCD
- Slow (1 sec) and fast (125ms) response settings to check peak and average noise levels
- PC interfaces (SM-20A only)

| FEATURES | SM-10 | SM-20-A |
|---|---|---|
| Microphone | 1/2" Electret condenser microphone | |
| Standard Applied | IEC 651 Type 2, ANSI 1.4 Type 2 | |
| Dynamic Range | 50 dB | |
| Time Weighting | FAST (125 mS), SLOW (1 sec) | |
| Frequency Range | 31.5 Hz ➞ 8 kHz | |
| Measuring Level Range (Auto Range) | A-Weighting: 30 dB ➞ 130 dB<br>C-Weighting: 35 dB ➞ 130 dB | |
| Data | Data hold | Min/max |
| Internal Memory | - | 14,000 records |

**INCLUDED ACCESSORIES:** Carrying case, users manual, battery (installed), USB cable download and software CD (SM-20A only)

CE N10140

### SM-CAL1 Sound Meter Calibrator

**This instrument generates the fixed sound level signals needed to calibrate sound level meters.**

CE N10140

- Two output levels: 94 dB and 114 dB
- Output frequency:1000Hz
- Fits ½" microphones
- Easy one-handed operation
- Low battery indicator
- CE: conforms to ANSI S1.40 – 1984 and IEC942 – 1988 Class 2

**INCLUDED ACCESSORIES**: Battery (installed), users manual

## Process Control Stopwatches – Maximize efficiency

### TIME-10 and TIME-20 Stopwatches

**By analyzing and precisely timing each task, you can optimize process flow, verify improvement times and document cost savings on production floors or assembly lines.**

- Chronograph: 1/100 stop watch, split/lap time
- Time display: hour, minute, second, day, week day, month and year
- Alarm function
- Hourly chime
- Water resistant
- Dual time LCD with count-down timer and 5-lap time (TIME-20 only)

| FEATURE | TIME-10 | TIME-20 |
|---|---|---|
| Normal Time | Days, Month, Date, Hour, Minute, Second, AM/PM, 12/24 Hours, Alarm Sign Hourly Chime | |
| Alarm Time | Hour, Minute, Alarm Sign Hourly Chime | |
| Chronograph | 1/100 Stop watch Max Count: 50:59 (Minute : Second) (99/100Sec) | 1/100 Stop watch Max Lap: 5 Recall: Last 4 Max Count: 50:59 (Minute : Second) (99/100Sec) |
| Count-down Timer | – | Hour, Minute, Second Min Count: 1 Sec Max Count: 23:50:59 (Hour : Minute : Second) |

**INCLUDED ACCESSORIES**: Users manual

*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE®
HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**SM-10**
SOUND METER
**SM-20 A**
SOUND METER DATALOGGING W/ PC SOFTWARE
**SM-CAL1**
SOUND METER CALIBRATOR
**TIME-10**
STOP WATCH
**TIME-20**
STOP WATCH

AMPROBE®
HARD AT WORK SINCE 1948.

## Solar Energy and Battery Testers

**GREEN**
**You need to be ready to test and troubleshoot new technologies as they emerge and alternative energy is the hottest trend. Amprobe's solar solutions suite equips you to install, maintain and troubleshoot solar systems as well as analyzing the energy efficiency of solar panels, water heaters and windows. Use the Amprobe line of battery testers not only for green energy applications but also to test UPS and battery back-up systems.**

## SOLAR-100 Power Meter

**Optimize the placement of solar systems and analyze window efficiency with the SOLAR-100. Measure solar output and calculate overall energy and efficiency.**

- Windows performance testing: calculate and verify heating or heat reduction caused by direct sunlight
- Research the location of solar panels or solar water heaters
- Measures solar power and transmission
- Power mode measures incident solar radiation
- Transmission mode calculates the percentage of solar power transmission through materials such as windows
- Convenient display with remote sensor technology
- Selectable measurement units (W/m² or BTU/ft²xh)
- Min/max function identifies locations with maximum or minimum power
- Also useful for physics and optical laboratories, meteorology, agriculture

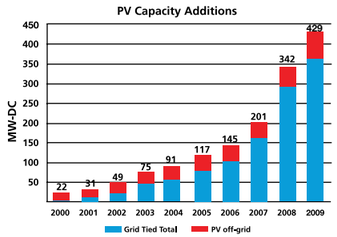
| FEATURE | SOLAR-100 |
|---|---|
| Solar Power | Up to 2000 W/m², 634 BTU/(ft²xh) |
| Max/Min | • |
| Data Hold | • |

**INCLUDED ACCESSORIES:** Battery (installed), carrying case, users manual

CE N10140

**THE FUTURE IS BRIGHT FOR SOLAR.**

**Despite the recent recession, the U.S. solar energy industry continues to be a sunny spot in the economy, growing in both new installations and employment. In 2009, total U.S. solar industry revenues climbed 36% and total U.S. solar thermal capacity approached 24,000 MW. Year-over-year growth in annual grid-tied capacity increased by 38 percent.**




*On the national policy front, significant solar victories are paving the way for businesses and consumers to make long-term investments in solar. The Emergency Economic Stabilization Act extended the 30% solar investment tax credit for 8 years, lifted the cap on residential PV installations, and allows tax credits to be applied against the alternative minimum tax. The American Recovery and Investment Act established a temporary grant program that covers 30% of the cost of installing solar equipment and a $60 billion loan fund for renewable energy and transmission projects.*

*States and cities across the nation are instituting aggressive new solar policies. Massachusetts offers rebates up to $4.40 per watt for grid-tied solar systems. Hawaii requires new residential construction to include solar water heaters. Maryland and Missouri both increased their Renewable Portfolio Standard (RPS) goals to 20% and 15% respectively with specified percentage mandated for solar.*

*This all adds up to unprecedented opportunity for those who install, test and maintain solar systems.* ***Be prepared to take advantage of the solar business boom with Amprobe's new suite of solar tools.***

*Source: U.S. Solar Industry Year in Review, Solar Energy Industries Association, April 5, 2010.*

*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**SOLAR-100**
SOLAR POWER METER





## SOLAR-500 and SOLAR-600 Solar Analyzers

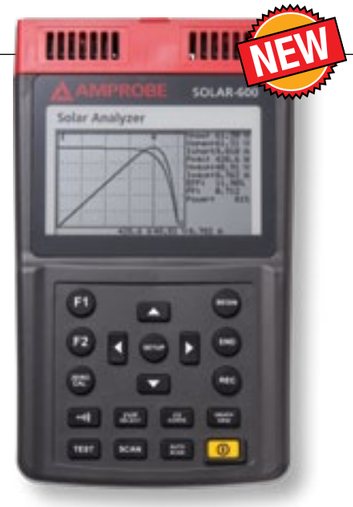
**Install, maintain, troubleshoot and evaluate the efficiency of solar panels with this these professional analyzers. The SOLAR-600 also offers real-time data logging and PC downloads for further analysis.**

- Determine the proper inverter size and optimum power output position of panels
- Identify broken or worn-out cells
- I-V curve test with cursor for solar cells
- Maximum solar power (Pmax) search by auto-scan
- Maximum voltage (Vmaxp) at Pmax
- Maximum current (Imaxp) at Pmax
- Voltage at open circuit (Vopen)
- Current at short circuit (Ishort)
- I-V curve with cursor
- Calculation of panel efficiency (%)
- Manual single point test
- Real time datalogging and PC download (SOLAR-600)

| FEATURE | SOLAR-500 | SOLAR-600 |
|---|---|---|
| DC Voltage: | 0 V → 6 V, 6 V → 10 V, 10 V → 60 V | 0.000 V → 9.999 V, 10.00 V → 60.00 V |
| DC Current: | 0 A → 0.6 A, 0.6 A → 1 A, 1A → 6 A | 0.01A → 9.99 A, 10.0 A → 12.0 A |
| DC Current Simulation | 0 A → 1 A, 1 → 6 A | 0.01 A → 9.99 A, 10 A → 12 A |
| Power | 0 W → 360 W | 0 W → 720 W |
| Efficiency | • | |
| Scan delay | 0 mS → 3000 mS | |
| Alarm | • | |
| Solar Panel Area | 0.001 m² → 9999 m² | |
| Standard Light Source | 10 W/m² → 1000 W/m² | |
| Data Storage Memory | • | 99 records |
| Data Logging | • | |

**INCLUDED ACCESSORIES:** SOLAR-500: Users manual, rechargeable batteries (installed), ac adapter, test leads, carrying case, USB cable and software CD
SOLAR-600: Users manual, rechargeable battery pack (installed), ac adapter, USB cable and software CD, test leads, carrying case

CE N10140




**RECOMMENDED ACCESSORIES**

**SOLAR-BAT1** **Lithium Battery** (SOLAR-600)

*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE® HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**SOLAR-500**
SOLAR ANALYZER
**SOLAR-600**
SOLAR ANALYZER

## BAT-100 and BAT-200 Battery Testers

**Battery failure is one of the most common causes for sensor or instrument failure. These portable universal battery testers make checking batteries simple.**

- Easy-to-read color-coded display with "Good", "Low" and "Replace/Recharge" indicators
- Tests standard and rechargeable batteries: 9V, AA, AAA, C, D, 1.5V Button Type
- Compact design
- Ergonomic battery holder

| FEATURE | BAT-100 | BAT-200 |
|---|---|---|
| Battery Type | 9V, AA, AAA, C, D, 1.5V Button Type | |
| Analog Scale | • | |

**INCLUDED ACCESSORIES:** Users manual

CE N10140

## BAT-500 Battery Tester

**Here's the quick, accurate way to test back-up batteries and UPS systems without taking the batteries off line.**

- Comparator function to quickly access battery condition as Pass, Warning, or Fail
- Store up to 99 user program able settings for quick battery diagnostics
- Tests battery impedance to calculate its true life
- Works with most batteries: compact storage batteries, alkaline and lead-acid up to 500 Ah
- Resistance measurement up to 40 ohms, and voltage up to 40 V
- Simultaneously measure battery resistance and voltage
- Compact and lightweight
- For trending/life cycle analysis download test results to a PC

| FEATURE | BAT-500 |
|---|---|
| Maximum Battery Capacity | Up to 500 amp hours |
| Battery Type | Alkaline, Nickel-Metal Hydride (NiMH), Nickel-Cadmium (NiCd), Lithium-ion (Li-ion) and lead-acid batteries |
| DC Voltage | 4.000 V, 40.00 V |
| Impedance | 40 mΩ, 400 mΩ, 4 Ω, 40 Ω |
| Data Capture Memory | 500 data sets |
| Data Logging Memory | 9600 data sets |
| PC Download | • |

**INCLUDED ACCESSORIES:** Users manual, software manual, batteries, ac adaptor, RS232C (to USB Bridge) cable, software CD, kelvin clips

CE N10140

*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE®
HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**BAT-100**
BATTERY TESTER
**BAT-200**
BATTERY TESTER
**BAT-500**
BATTERY IMPEDANCE TESTER





## CR50A Inductance, Capacitance and Resistance Tester

**Inspect and verify components for quality control by quickly checking circuits with this full-range capacitance and resistance meter.**

CE N10140

- Dual zero adjustments pots to null strays and test leads
- Special "low ohms" range
- "Zero adjust" pots for low ohms and capacitance ranges
- Low battery indication

## LCR55A Capacitance Tester

**The ultimate electronic component verifier measures inductance, capacitance, resistance, transistors, diodes and microwave diodes.**

CE N10140

- Plug-in test slots and test leads with threaded alligator clips for precision testing
- Data hold and max hold
- "Zero adjust" pot for ohms
- Low battery indication
- Auto power-off

| FEATURE | CR50A | LCR55A |
|---|---|---|
| Resistance | 20 Ω, 200 Ω, 2 kΩ, 20 kΩ, 200 kΩ, 2 MΩ, 20 MΩ | 20 Ω, 200 Ω, 2 kΩ, 20 kΩ, 2 MΩ, 20 MΩ |
| Capacitance | 200 pF, 2000 pF, 2 µF, 20 µF, 200 µF, 2 mF, 20 mF | 200 pF, 2000 pF, 2 µF, 20 µF, 200 µF, 2 mF |
| Inductance | - | 200 µH, 2 mH, 200 mH, 200 H |
| Transistors | - | Hfe, Iceo (NPN, PNP) |
| Diodes | • | Std (3 V) & microwave oven (8 V) |
| Continuity test | • | |

**INCLUDED ACCESSORIES:** Users manual, test leads with alligator clips, battery (installed)



## R-115S Momentary switch relay (3-wire) RC-120S Closet light relay (2-wire)

**When you need low-voltage control circuits for safe operation in industrial and process control environments, choose these low-voltage relays with built-in transformers. Each unit operates independently, so you can install one relay and operate it with as many switches as needed or control multiple relays with a single switch.**

- Uses light 22 gauge wire, saving the time and expense of pulling Romex or armored cable
- Simplifies wiring – no need to wire back to separate low voltage transformers
- Operates silently so you can install relays at the fixture instead of at a remote location

| FEATURE | R-1155 | RC120S |
|---|---|---|
| AC Voltage | 105 V ➞ 125 V | |
| AC Current | Up to 6.5 A (1/4 HP max motor load at 120 V) | |
| Frequency | 60 Hz | |
| Safe control switching, maximum | 10 V dc 10 milliamps | |

c UL us

*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE®
HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**CR50A**
CAPACITANCE/RESISTANCE METER
**LCR55A**
LCR METER WITH TRANSISTOR TEST

## Flashlight Series

**Easily illuminate plenums, warehouse ceilings, vaults, attics, or any dark area that requires no-nonsense illumination.**

- Cutting-edge CREE LED technology, optical pre-focused collimator lens for superior light output
- Precision-machined aluminum housing sealed with O-rings for ruggedness
- Flash-200SP spotlight provides tremendous light output, illuminating more than 820 feet (250 m) on high beam, over 165 feet (50m) on low beam
- Flash-150Z concentrates illumination with zoom feature
- Mini Flash-80 beats standard LED flashlights, packing 80 lumens of light output into a compact case
- 100,000 hours of continuous lamp life, 10 years life
- Rugged waterproof housing, drop-proof up to 3 feet
- On/off tail switch with momentary on/off

| | Flash-80 | Flash-150Z | Flash-175 | Flash-200SP |
|---|---|---|---|---|
| KEY FEATURE | Small size | Zoom | Super bright | Flood light, adjustable |
| Light Output | 80 lumens | 130 lumens | 175 lumens | High beam: 180 lumens<br>Strobe: 180 lumens<br>Low beam: 20 lumens |
| Number of AA batteries (rechargeable) | 1 | 2 | 2 | 4 |

**INCLUDED ACCESSORIES:** Rechargeable batteries (Flash-200SP only), ac power adaptor (Flash-200SP only), vehicle charger (Flash-200SP only), users manual

CE N10140

*For detailed specifications go to* ***www.Amprobe.com***

AMPROBE®
HARD AT WORK SINCE 1948.

**ORDERING INFORMATION**

**Flash-200SP**
SUPER-BRIGHT LED SPOTLIGHT
**Flash-150Z**
INDUSTRIAL LED FLASHLIGHT WITH ZOOM
**Flash-175**
INDUSTRIAL LED FLASHLIGHT
**Flash-80**
INDUSTRIAL MINI-FLASHLIGHT

AMPROBE®
HARD AT WORK SINCE 1948.

## Accessories

**OPTIMIZE**
**Get the most out of your Amprobe tools with a wide range of carrying cases, probes, current transducers, test leads, software and more. Please review your owners manual or visit www.Amprobe.com for complete details on the right accessories to support each test tool.**

## Test Leads

**DL243D**
48" long silicone lead wires, probe tips, alligator clips, spade lugs, fold-out carrying case

**DL248D**
Same as DL243D plus spring loaded crimp tips and red tip length extender

**MTL-90C**
Silicone test leads with alligator clips

**TL244B**
Heavy duty silicone leads: 48" heavy duty test lead wire with Ever-sharp probe tips plus threaded alligator clips
Shrouded 90° banana plugs

**TL245A**
PVC insulated standard test leads

**TL246C**
Heavy duty silicone test leads with attached extra-large alligator clips

**TL35B**
Standard leads: 40" PVC insulated lead with standard tips plus threaded large alligator clips, CE approved alligator clips, 0.6" jaw, shrouded 90° banana plugs, one red and one black leads and clips

**TL36A**
Test leads with threaded alligator clips
CAT IV / 600 V, CAT III / 100 V

**TL1500**
Heavy duty test leads
CAT IV / 1000 V, 1500V MAX

## Line Splitter

**ELS2A, AC Line Splitter**
- Measures load current without splitting line cord
- Two measurement points, X1 and X10 for increased sensitivity
- Built-in voltage measurement jacks
- 115 V, 15 A

## Temperature Adapters

**DKTA-620, Single to dual temperature adapter**
- Accessory for multimeters and clamp-ons with temperature input
- Converts single temperature input to a dual temperature
- Computes differential temperature between probes

**TC253B temperature adapter**
- Add thermometer function to any digital multimeter
- ˚F / ˚C switchable
- Uses Type K thermocouple sensor
- Includes Type K probe (TP255A)
- Range: -58 ˚F → 1832 ˚F (-50 ˚C → 1000 ˚C)
- output 1 mV / ˚C

## Current Transducers

**ACF-3000AK**
**3000 A Flexible Current Transducer**
- For use with multimeters or any instrument with AC milli-volt input
- Measures up to 3000 Amps AC
- Connects directly to an instrument
- Flexible head fits all, small conductors and large bus-bars up to 7" in diameter
- Wide frequency bandwidth (10 Hz → 20 kHz)

**CT235A**
- AC/DC current clamp,1000 A (50/10 kHz), mV output, 1.2" max conductor

**CT237B**
- AC/DC current clamp, 200 A (50/10 kHz), mV output, .75" max conductor

**CT238A**
- AC/DC current clamp, 20 A (50/20 kHz) Low current version

**CT-600 AC/DC 600 A AC/DC Clamp-On Transducer**
- For use with multimeters, oscilloscopes, power recorders or any instrument with ac and dc milli-volt input (1 mV ac per Amp)
- AC or DC Current measurement up to 600 A
- Two ranges 100 A and 600 A (millivolt output respectfully10 mV and 1 mV per Amp)
- Wide frequency response 40 → 400 Hz
- Maximum jaw opening 1.33"

**ACF-3000DM-A**
**Current Transducer**
- Extends current range to 3000 A
- Flexible head fits all, small conductors and large bus-bars up to 7" in diameter
- Supplied with adapters for the DM-II PRO and DM-II PLUS units
- Two measurement ranges: 30 A → 300 A AND 300 A → 3000 A
- Recommended one ACF-3000DM-A for single phase system and three for three phase systems

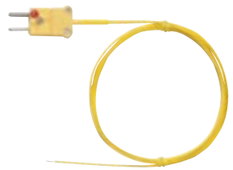
## Temperature Probes

**MH101KA, Thermocouple**
- Master probe handle for probes
- 5:1 expandable coiled extension wire

**TP110KA, Type-K Temperature Probe**
- Immersion probe tip
- Can be used with MH101KA
- 650 °C (1200 °F)

**TP120KA, Type-K Temperature Probe**
- Surface probe tip
- 650 °C (1200 °F)
- Can be used with MH101KA
- Specially designed to get true surface temperatures

**TP130KA, Type-K Temperature Probe**
- Air/gas probe tip
- 650 °C (1200 °F)
- Can be used with MH101KA
- Specially designed with radiation sheath



**TP255A, General purpose type-K probe**
- 200 °C (392 °F)

**TP254A, Higher-temperature immersion probe**
- 1100 °C (2012 °F)

**TPK-59, Thermocouple**
- Accessory for multimeters and clamp-ons with temperature input
- Measures temperature from -50 °F → 600 °F
- Plugs directly to a meter without additional adapters

## Carrying Cases

**CC-ACDC**
Soft pouch zippered Carrying Case
11.5 x 4.5 x 2.8"
(292 x 114 x 70 mm)

**DC205C**
Deluxe Heavy Duty Carrying Case
9.6 x 4.7 4.3"
(244 x 119 x 109 mm)

**CC-MEG**
Soft Carrying Case
10 x 8.5 x 3.25"
(254 x 216 x 89 mm)

**SV-U**
Soft pouch zippered Carrying Case
8.5 x 3.0 x 2.5"
(216 x 76 x 64 mm)

**VC221B**
Padded vinyl Carrying Case
8.5 x 4.5 x 2.5"
(216 x 114 x 64 mm)

**VC3A**
Rugged zippered Carrying Case
4.5 x 2.2 x .4"
(114 x 56 x 10mm)

**VC30A**
Vinyl Carrying Case
7.5 x 3.4 x 1.5"
(191 x 86 x 38 m

**CC-DM-III**
Deluxe Heavy Duty Carrying Case
18.3 x 15.0 x 7.3"
(465 x 381 x 184 mm)

**CC-300 PRO**
Leather Carrying Case
10.84 x 4.20 x 2.40"
(275 x 107 x 70 mm)

| | CC-ACDC | DC205C | CC-MEG | SV-U | VC221B | VC3A | VC30A | CC-DM-III | CC-300PRO |
|---|---|---|---|---|---|---|---|---|---|
| 30XR-A | | • | | | | | | | |
| 33XR-A | | • | | | | | | | |
| 34XR-A | | • | | | | | | | |
| 37XR-A | | • | | | | | | | |
| 38XR-A | | • | | | | | | | |
| 5XP-A | | | | | | | • | | |
| 15XP-B | | | | | | | • | | |
| 35XP-A | | | | | | | • | | |
| AC40C | • | | | | | | | | |
| AC50A | • | | | | | | | | |
| AC68C | • | | | | | | | | |
| AC75B | • | | | | | | | | |
| ACD-50NAV | • | | | | | | | | |
| ACD-51NAV | • | | | | | | | | |
| ACDC-52NAV | • | | | | | | | | |
| ACD-53NAV | • | | | | | | | | |
| ACDC-54NAV | • | | | | | | | | |
| ACD-20SW | • | | | | | | | | |
| ACD-21SW | • | | | | | | | | |
| ACD-22SW | • | | | | | | | | |
| ACD-23SW | • | | | | | | | | |
| ACD-10 PLUS | | | | • | | | | | |
| ACD-10 TRMS PLUS | | | | • | | | | | |
| ACD-14 PLUS | | | | • | | | | | |
| ACD-14 TRMS-PLUS | | | | • | | | | | |
| ACD-15 TRMS-PRO | | | | • | | | | | |
| ACD-16 TRMS-PRO | | | | • | | | | | |
| ACD-41PQ | | | | • | | | | | |
| ACD-45PQ | | | | • | | | | | |
| ACD-6 PRO | | | | • | | | | | |
| ACDC-100 | | | | • | | | | | |
| ACDC-100 TRMS | | | | • | | | | | |
| ACD-3300 IND | • | | | | | | | | |
| ACDC-3400 IND | • | | | | | | | | |
| ACDC-400 | • | | | | | | | | |
| AD40B | • | | | | | | | | |
| AM-140-A | • | | | | | | | | |
| AM-160-A | • | | | | | | | | |
| AM-220 | | | | | | | • | | |
| AM-240 | | | | | | | • | | |
| AM-250 | | • | | | • | | | | |
| AM-270 | | • | | | • | | | | |
| AM8C | | • | | | • | | | | |
| CR50A | | | | | | | • | | |
| DGC-1000A | | • | | | | | | | |
| DM73C | • | | | | | | | | |
| DM78C | • | | | | | | | | |
| DM7C | | • | | | • | | | | |
| DM9C | | • | | | • | | | | |
| HD110C | | • | | | • | | | | |
| HD160C | | • | | | • | | | | |
| INSP-3 | | • | | | • | | | | |
| LCR55A | | • | | | • | | | | |
| LH41A | | | | • | | | | | |
| PM51A | | | | | | • | | | |
| PM55A | | | | | | • | | | |
| RS-1007 | • | | | | | | | | |
| RS-3 PRO | • | | | | | | | | |
| TIC 300 PRO | | | | | | | | | • |
| GP2 | | | • | | | | | | |
| DM III Multitest | | | | | | | | • | |
| AMB-45 | | | • | | | | | | |





## Product Fuse Directory

| MODEL | FUSE PART NUMBER | FUSE TYPE |
|---|---|---|
| RS-1007 | FP500 | F 0.5 A 700V |
| RS-3 PRO | FP500 | F 0.5 A 700V |
| AM-250 | FA-12.5A/500V | 630mA/500V |
| | FA-12.5A/500V | 12.5A / 500V |
| AM-270 | FP650 | 630mA/500V |
| | FA-12.5A/500V | 12.5A / 500V |
| AM-140-A | FP160 | 10A/600V |
| | FUSE-1A | 1A/600V |
| AM-160-A | FP412 | 0.44A / 1000V |
| | FP410 | 11A/1000V |
| AM-220 | FP221 | 0.5A/250V |
| | 6X32-250V10A | 10A/250V |
| AM-240 | FP221 | 0.5A/250V |
| | 6X32-250V10A | 10A/250V |
| 30XR-A | FP160 | 10A/600V |
| | FP375 | 25A/700V |
| 33XR-A | FP100 | 10A/1000V |
| | FP300 | 0.315A/1000V |
| 34XR-A | FP100 | 10A/1000V |
| | FP300 | 0.315A/1000V |
| 37XR-A | FP100 | 10A/1000V |
| | FP500 | 0.5A/1000V |
| 38XR-A | FP100 | 10A/1000V |
| | FP500 | 0.5A/1000V |
| 5XP-A | FP300 | 0.315A/1000V |
| 15XP-B | FP200 | 2 A/1000 V |
| 35XP-A | FP200 | 2 A/1000 V |
| HD110C | FP700 | 2 A/1500 V |
| HD160C | FP700 | 2 A/1500 V |
| DM7C | FP900 | 200mA / 700V |
| DM9C | FA-6X32/.63 | 500mA / 700V |
| | FP540 | 10A/500V |
| PRM-4 | FP900 | 200mA / 700V |
| AMB-45 | FA-0.5A/700V | 0.5A/700V |
| S2300(AT-200X) | 380.25-6X32 | F 0.25A /380V |
| S2600(AT-200X) | 660.25-6X32 | F 0.25A/380V |
| T-100,T-300 (CT-100, 326B) | 3AG-312.250 | F 0.25A/250V |
| T2200(AT-200X) | 2502-6X32 | F 2A-250V |
| T-4000(AT-400X) | FA6X46MM | F 0.25A/1000V |
| X1000 (AT1000) | 380 .25-6X32 | F 0.25A/380V |
| CR50 | FP125 | 0.1A/250V |
| LCR55 | FP125 | 0.1A/250V |
| AU92 | FP520 | 0.5V/500V |
| | FP540 | 10A/500V |
| AM8C | FP150 | 200mA/250V |

## Software and Cables

**Transfer measurement data to your computer with these kits.**

**For complete details on Amprobe software and to download the latest versions, please visit www.amprobe.com/softwaredownloads.html**

### Download Suite Software

Download Suite is a unique software package compatible with most of the Amprobe instruments with download capabilities. Enjoy the benefits of this powerful software package for a wide selection of Amprobe megohmeters, ground resistance testers, multitesters, and power quality recorders.

- Install software once and use it with all Amprobe products supported
- All instruments share the same file format. You can open files recorded by you, other people, or even other Amprobe instruments right on your PC.
- Download Suite automatically checks your version for upgrades and keeps your version current.
- Windows7 compatible

### USB KIT2

- Download software with connection cable for Amprobe clamp meters

### USB KIT3

- Download software with connection cable for Amprobe multimeters

### RS-USB, USB to RS-232 Adapter

- Converts the USB port of a PC to RS-232
- Supports Windows 95(OSR2X), 98, 2000, ME, XP, Vista, Mac 8.6 and higher
- Works with Amprobe instruments with download capabilities
- Works with many other products with USB ports, including cameras, Palm Pilot, card readers, mouse, security systems, etc.
- Frees up the serial port for other uses

### TM-SWA, USB Cable and Software

- Allows for real-time data downloads from TMA10A and TMD90A
- Records two channels simultaneously

*USB KIT2*

*USB KIT3*

## Amprobe Product Warranty

*Amprobe is committed to delivering the highest quality test and measurement products and provides a 1 year warranty with most of its products. The length of the product warranty is stated in the user's manual that comes with each product and can be downloaded from* ***www.Amprobe.com***

*If you ever need warranty service, please contact the Amprobe Service Department at* ***1-877-AMPROBE****.*

*To better serve you for products with a list price up to $500, Amprobe authorizes an over-the-counter product exchange from any authorized Amprobe distributor within 30 days from the date of purchase.*

AMPROBE®
HARD AT WORK SINCE 1948.

# What's new.

**Every year, Amprobe introduces innovative new tools that help you work smarter and faster and make every dollar count. Here are just a few examples of the dozens of new tools you'll find inside this catalog.**

- **DM-III Multitest:** Cut energy costs and improve operating efficiency.
- **AM-270 Multimeter:** Safety rated for CAT IV environments.
- **Navigator™ Clamp Meter:** Get a snapshot of harmonics and power quality.
- **Swivel™ Clamp Meter:** Swivel the 180° rotating head to see the reading.
- **INSP-3 Wiring Inspector:** Test wiring in seconds.

AMPROBE®
HARD AT WORK SINCE 1948.

**www.Amprobe.com**
We invite you to visit our web site for full data sheets with specifications, application notes, software downloads, special promotions and much more.

**Amprobe Test Tools**
www.Amprobe.com
info@amprobe.com
Everett, WA 98203
tel: 877-AMPROBE (267-7623)

**Amprobe Test Tools Europe**
Beha-Amprobe GmbH
www.Amprobe.de
info@amprobe.de
In den Engematten 14
79268 Glotteral, Germany
tel: +49 (0) 7684 8009 - 0

© 2011 Amprobe Test Tools
All rights reserved.
Printed in the U.S.A.
2765603G

*Specifications subject to change without notice.*